

***Kruiedokters*, plants and molecules: relations of power, wind, and matter in Namaqualand**

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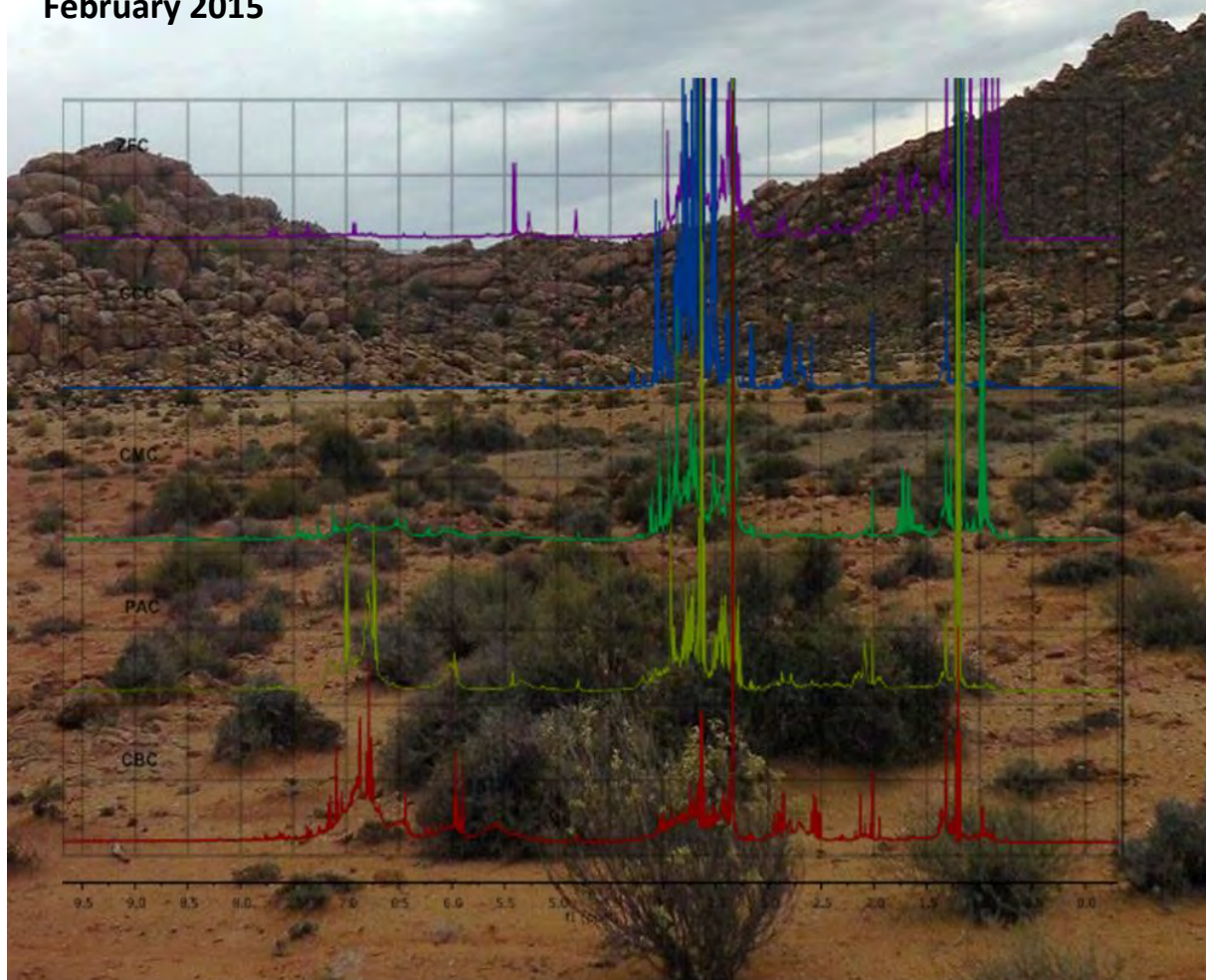
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Glossary of acronyms and key Afrikaans and other terms

AIME *An Inquiry into Modes of Existence*. A book (2013) and collaborative online project led by Bruno Latour. Latour's aim is to theoretically extend the number of modes of existence practically important in the life of 'modern' people, in order to produce a more accurate anthropology of modernization, and from there to facilitate the possibility of diplomacy with other collectives. Beyond this, his ultimate aim is the composition of the common world, to begin the modernization project again on 'a new footing' (modesofexistence [AIME], n.d.)

ANT Actor Network Theory. An influential theoretical tool in sociology and anthropology, developed by Bruno Latour, Steve Woolgar, Michel Callon, John Law and others in the 1980s (Latour and Woolgar 1979, Law 1986, Callon 1986). Initially developed for the study of the production of scientific knowledge, in part to answer Latour's call for a 'symmetrical anthropology' that would take an equal interest in the lives of 'moderns' as it would 'non-moderns', in cosmopolitan 'centres' as in the rural 'margins', it has subsequently been applied to a wide array contexts and issues (Latour 1993, e.g. Poell, de Kloet & Zeng 2014, Bekken 2014). It has become a key theoretical tool in the burgeoning field of STS.

The central idea of ANT is to follow, without recourse to any holding, meta-concept (such as 'nature' and 'society'), the distributed and varied agencies that, through their varied kinds of work, compose phenomena that the modern constitution labels as 'natural' or 'social'. When applied to the experimental establishment of scientific 'facts', ANT has shown how such facts rely on the alignment of myriad elements – the scientist in skilled practice, journal articles, the experimenter's machinery and equipment, funding, the object of knowledge (such as a medicinally active compound found in a leaf) to mention a few – each in its own way acting on, and being acted upon by, the other elements. It is a constructivist theory as opposed to a social constructionist one because the associations that go into the production of facts cannot be limited to human meaning and symbols (e.g. as in Lyotard 1984), for the simple reason that the roles of non-human 'actants' are taken into account. Each 'fact' then depends on – and cannot

	be established outside of - this aligned, distributed network of natural-cultural associations. This means that science constantly produces more and more ‘hybrids’ that cross-cut, and intermingle elements that previously would have been labelled natural or cultural, matter or mind.
AZEF	Arid Zone Environmental Forum
baas	master, boss
baie	very, really
bakkie	pick-up truck or sports utility vehicle: A ‘ <i>bak</i> ’ is a bowl, and ‘ <i>bakkie</i> ’ refers to the ‘bowl’ formed by bed at the back of a pick-up truck.
baljas	witchcraft, magic
baldejas	Witchcraft, magic
blikdraers	‘tin carriers’: Peter Carstens (1966: 179), writing on research carried out on various Namaqualand communal reserves the 1950s, mentions <i>blikdraers</i> as a name used at that time to refer to people using bad medicine. Saying someone ‘carries’ (<i>dra</i>) is similarly used today.
bose gees	evil spirit
bossiesmedisyne	literally, ‘bushes medicine’: used to refer to a wide range of plant-based medicines, normally referring to ‘traditional’, as opposed to biomedical practice and medicines.
breins	brain
die	the
die Here	the Lord: the Christian God as referred to in the Bible.
dokter	doctor: this word is used in the thesis as shorthand for <i>kruiedokter</i> .
Duiwelkuns	Devil arts: referring to dangerous, bad, and harmful magical practices and objects.
fynbos	literally ‘fine bush’: a kind of heathland vegetation found mostly in the Western Cape, characterised by scrubby plants with small, thin (i.e. ‘fine’) leaves.
gedagtes	thoughts
gees	spirit
gevang	caught
GIBEX	developed by The Global Institute for BioExploration (GIBEX). Established by Rutgers, the State University of New Jersey, and the University of Illinois and Urbana-Campaign, GIBEX uses STN technology (see below) to enable

	screening of plant material for pharmacologically active principles in the field, i.e. the ‘natural’ environments where potential drug-compound-carrying plants are usually collected. This new technology means that plant material does not have to be removed from the sites where plants grow, and where people find, harvest, prepare and use them as medicines.
<i>gif</i>	poison
<i>Godsiekte</i>	God sicknesses: used in the Kamiesberg to refer to sicknesses like blood pressure, diabetes, stomach aches, not attributed to <i>toor</i> , but which are ‘natural’ and ‘just happen’.
<i>groot</i>	big, great
<i>groot aar</i>	big vein or artery: sometimes named as the aorta.
<i>grootmaak ma</i>	literally ‘rearing mom’: applied to a woman who raises you in lieu of your ‘proper parents’.
<i>huiskind</i>	home child: used to express the sentiment that someone is like one of the family.
<i>in gesny</i>	cut/sliced in: someone who is <i>in gesny</i> has undergone the incision of <i>snyplekke</i> (as described below) on their body.
<i>inyanga</i>	herbalist in Southern African Nguni (including Xhosa and Zulu) traditions and languages
<i>ja</i>	yes
<i>kans vatter</i>	chance taker: has the implications that the person so named is some kind of conman.
<i>kennis</i>	knowledge
<i>Khoi</i>	a name often given to the mostly pastoralist, sheep-herding people who lived in and moved around large swathes of Southern Africa before the large-scale arrival of Europeans in the seventeenth century.
<i>Khoisan</i>	an often fraught and politically charged term, an early 20 th century invention of European scholars used to group together historical hunting and gathering San or Bushmen and more pastoralist Khoi people, based on similarities of language, beliefs, and practices.
<i>kookhuis</i>	cookhouse: many Kamiesberg residents have a construction of wood, corrugated iron, or other material outside but close to the main house where food is prepared on a ground-level fireplace.

<i>kougoed</i>	literally ‘chew stuff’: <i>Sceletium</i> species of succulent plants, this is an important medicine in the Kamiesberg area. Usually, after a lengthy process of preparation, it is held as a small wad in the mouth so that its bitter, mildly psychoactive juices can be absorbed into the body. Used, among other things, for the treatment of stress and wind (‘magical’ and ‘natural’), and sometimes just for the pleasure of its intoxicating effects.
<i>krag</i>	power, strength, vitality
<i>krag vol</i>	full of strength, power, vitality
<i>kruiedokter</i>	herb doctor: in the Kamiesberg, these typically work in a manner that is a combination of diviner and herbalist. Usually in exchange for money and sometimes for gifts of goats, sheep, and favours, <i>kruiedokters</i> prepare plant-based medicines and other remedies for a wide range of illness and ailments – from blood pressure and diabetes to marital problems.
<i>kuier</i>	visit, socialize
<i>kwaadaandoeners</i>	evil senders: said to be those using <i>toor</i> to send malevolent thoughts and intentions at their intended victims.
<i>lekker</i>	nice, tasty, lovely: the term is used to express a wide range of positive sentiments, often with an underlying association with taste and food.
<i>lewende wind</i>	living wind: often equated with the <i>Heilige Gees</i> (Holy Spirit) – that which makes you alive. It ‘lives’ in your ‘ <i>groot aar</i> ,’ the ‘big vein,’ sometimes named as your aorta , that ‘sits above your liver.’
<i>liggaam</i>	body
LC-MS	Liquid Chromatography–Mass Spectrometry: expensive and sophisticated tool of chemical analysis that allows researchers to identify thousands of compounds, via precise measurements of molecular mass, within plant samples. It works according to the principle that ions in extracted plant samples will be more or less affected by a magnetic field according to their mass to charge ratio.
<i>natuur</i>	nature
<i>natuurlike</i>	natural
<i>nee</i>	no
NMR	Nuclear Magnetic Resonance: a tool of great importance to the work of organic chemists aiming to identify and determine the compounds within their samples. At the heart of the NMR is an extremely powerful, super-

	cooled magnet that is able to offer insights into the structure of molecules according to a fine interplay of energy and forces that pass through the nuclei of particular kinds of atoms.
oom	uncle: used to refer to the brother of your mother or father, and to men a generation older than yourself and to men of middle to late age in general.
oorlede	died
ordentlik	decent, proper, respectful
ouma	grandmother: used to refer to the mother of your mother or father, as well generally women much older than you, and or women around seventy years old and over.
oupa	grandfather: used to refer to the father of your mother or father, to men much older than you, and or to men around seventy years old and over.
pap	weak, lacking in <i>krag</i> .
potjie	heavy, black, iron cauldron-like pots, usually with legs that are placed over fires, used for cooking in households without electricity, or when money for electricity runs out.
ritme	rhythm
sangoma	diviner-healer in the Southern African Nguni (including Xhosa and Zulu) traditions and languages.
siel	soul
skerm	literally meaning ‘screen’: a circular, domed structure, built of a range of materials, from plastic and metal, to wood and bushes found in the surrounding veld. They are usually around six to eight metres in diameter, with a hole in the roof that acts as a chimney.
skelm	sly
skollie	hooligan, reprobate
slagdinge	literally ‘butcher things’: refers to goats or sheep slaughtered for food, often for a special occasion such as weddings or funerals.
smeer	‘smear-massage’: an important dimension of healing in the Kamiesberg, and as Low’s (2004, 2008) work strongly suggests, in Khoisan healing practice in general. This is not exactly ‘massage’: <i>smeer</i> normally comes with connotations of the use, and the importance of, the slipperiness of the lubricant used in the practice – not just the physical manipulation of muscles and organs with the lubricant as an aid to this manipulation. This helps to

	keep the body supple and ‘flowing’ properly and is used to treat ‘natural’ and ‘magical’ winds.
<i>smeervrou</i>	smear-massage woman: these practitioners play an important role in the Kamiesberg, using lubricants such as Vaseline or sheep fat to work winds, as well as points of embodied social and physical tension, out of people’s bodies.
<i>smokkelhuis</i>	smuggle house: a private house where people sell alcohol.
<i>sny plekke</i>	cut/slice places: refers to the points of people’s bodies where <i>kruiedokters</i> have cut them very slightly, and rubbed in powerful herbs and other medicines in order to protect them from <i>toor</i> and other dangers.
<i>snywerk</i>	cutting/slicing: a form of cupping where the <i>dokter</i> makes a small cut in the skin of the patient, close to a site of pain. In previous generations, a hollowed out cow horn and the <i>dokter</i> ’s mouth was used to create suction over the cut, in this way drawing out the pain-causing poison. Today, in response to an awareness of germ theory, and probably because of knowledge of the dangers of blood associated with HIV, a <i>dokter</i> might instead use a tennis ball with a hole in it to create the necessary suction.
<i>spoor</i>	tracks, footprints
<i>stil</i>	quiet
STN	Screens-To-Nature technology, used in GIBEX assay kits (see above).
STS	Science, Technology and Society, or Science and Technology Studies: a branch of science studies that looks at the mutual constitution of human society and science and technology
<i>taaibos</i>	tough bush: a kind of woody bush, up to 3m high. The dead, dried branches of these bushes make excellent firewood, and its leaves can be boiled to produce a flu medicine.
<i>toor</i>	magic, witchcraft
<i>toorblikkie</i>	magic tin: small, flat tins that people carry around with them containing harmful, powerful substances which aim at increasing their luck and power at the expense of those around them.
<i>toorsiekte</i>	magic sickness: sickness cause by malevolent <i>toor</i> .
<i>toorwind</i>	magic wind: a troublesome, sickness- and ailment-causing wind brought about by <i>toor</i> .
<i>towenaar</i>	sorcerer

trommel	literally ‘drum’: a (usually) metal case of some sort, that a <i>kruiedokter</i> will often use to store and carry his medicines and tools around.
van	from, of
vee	general term to refer to sheep and or goats
veeposte	stockpost
veewagter	shepherd, herdsman
veld	literally ‘field’: people use this word to refer to uncultivated land outside of towns and villages.
veldkind	<i>veld</i> child: a person who has grown up spending a lot of time on farms and stockposts and so feels an affinity with and or is associated strongly with the veld.
vuil	dirty: often used to describe people or things associated with <i>toor</i> .
vuilheid	dirtiness
vuilgoed	dirty things, dirty stuff: when associated with <i>toor</i> , objects labelled in this way are the embodiment and exemplification of poison and negativity.
vuilwinde	dirty wind
waterslang	the huge, shape shifting, powerful watersnake that many stories hold inhabits ‘water places’ such as ravines and springs.
wind	wind: a polyvalent term, linking a suite of phenomena – including weather, breath, spirit, poison, smell, trapped gas, dirt and <i>toor</i> - between which there is sometimes assumed to be absolute identity. At other times, the word groups together the same phenomena as having causal, analogous or more ‘familial’ associations. Sometimes a wind can be synonymous with an evil spirit.
xaimpie	small (around 5cm square) bundles formed by wrapping malignant substances in pieces of cloth, paper or plastic – that <i>towenaars</i> are said to place in strategic places to bring bad luck and illness to their victims. There are also the <i>xaimpies</i> that <i>kruiedokters</i> themselves make and give to their patients to carry around with them, or to place in strategic places in their homes, designed to protect them from evil <i>toor</i> and return it to its sender(s). These <i>xaimpies</i> might contain something simple like a powerful root dipped in the fat or blood of a fearsome animal, or more complex ingredients including a host of powerful plants, and other objects designed to protect or attack.

***Kruiedokters*, plants and molecules: relations of power, wind, and matter in Namaqualand.**

Joshua B. Cohen, 15.02.2015

Abstract

This thesis was born out of the post-Mbeki era and the prevailing, tense relationship between ‘traditional’ healing and biomedical science in South Africa. Attempting to imagine this relationship differently, and as part of an interdisciplinary project, it is based on eleven months of ethnographic fieldwork centring round villages in the Kamiesberg municipality, Namaqualand. Part of the project involved molecular biologists seeking bioactive compounds in locally growing plants. Many of these species were also used by local *kruiedokters* (herbdoctors), with two of whom, ‘Koos’ and ‘John’, the author spent a large proportion of his research time. The thesis addresses the following constructivist questions: what kinds of realities are being done as *kruiedokters* and molecular biologists work in their own ways with plants? How might these realities – and the similarities and differences between them – be researched, understood and described in ways that rely neither on absolute relativism, nor on one kind of reality trumping all others? Exploring the work of one of the molecular biologists, the thesis argues that the world cannot be entirely encompassed by the matter or pure physicality of modernist metaphysics. This raises the possibility of other modes of existence – modes that people have long considered imperative to human well-being: e.g. in the work of *kruiedokters*, who specialise in curing people of illnesses and ailments associated with *toor* (witchcraft/magic). In order not to unfairly reduce these phenomena to belief or superstition, three of the five chapters attempt to attune to the ways in which three vital concepts – *krag* (power/vitality/strength), *toor*, and *wind* (wind), which are central to the work of *kruiedokters* – exist in people’s lives. Attuning meant following, in research and description, the living ecologies of relations through which *krag*, *toor*, and *wind* subsist. While belief can be understood to be part of the relational field, it is as much the constricting force of jealous, poisonous relations *themselves* that block people’s lives. To free patients of these blockages, *kruiedokters* bring the force of their personality, the cleansing effects of plants, as well as their own ecologies of relations to bear on the therapeutic contexts in which they work. If this succeeds, patients are drawn into a new set of protecting relations that cultivate feelings of *krag* – enabling patients to move forward with their lives. This poses the challenge that these relations, this work of *kruiedokters*, this *krag*, can be understood as being of central importance to human life – and not just as colourful cultural additions to an objectively known world of pure physicality. Studying the interplay of different modes of existence in therapeutic contexts is suggested as a possible way to carry out future, non-reductive collaborations between biomedicine, plant science, and ‘traditional’ medicine.

Introduction

I arrived at the University of Cape Town, in July 2009, to take up my doctoral studies with an Andrew Mellon fellowship. As a researcher with a particular interest in ‘traditional medicine¹’ (however that might be understood), human-plant relations, and plurality of knowledges, I had come to a South Africa that was struggling to come to terms with its own, politically-charged, intellectual heritage. In particular, the relative roles of ‘traditional’ or ‘indigenous²’ knowledge and ‘science³’ in the national episteme were subject to polemical and contradictory rhetoric and policy.

Under apartheid, the National Party of South Africa allowed of a kind of knowledge plurality, so long as (what it deemed to be) non-scientific knowledges were confined to the Bantustans or Native Reserves, tied inextricably to particular ‘cultures’ and subordinate to ‘white’ scientific knowledge: each culture bound inextricably, and organically, to a particular people, and a particular homeland (Crossman and Devisch 2002). Among its many crimes, the apartheid state had used ‘scientific’ evidence to justify, naturalise and legitimate its racial categorizations (Posel 2001). The ‘natives’ had their ‘cultural beliefs,’ the authorities had scientific *knowledge* about the way things *really are*. A profoundly modern move this, as Bruno Latour has pointed out: ‘believing that others believe’ was a position taken up by colonizing forces for centuries (Latour 2010:2). In other abuses of scientific

¹ To avoid the awkwardness of having to always use quotation marks, I recognise here that *traditional* is a hugely problematic term in that it evokes practices that hark back in time, to a conservative essence (Mungwini 2011). The word *medicine* is also not ideal because this might be too narrow a definition for practices that include what in modernist terms might be thought of a ‘religion’ or ‘spiritual practice.’ Nevertheless, I use the term because it points attention to domains of existence and practice not entirely consonant with biomedicine, however that might be understood. Also, since I address debates which use this term, it is a term I also employ. I take traditional medicine to encompass all areas of ‘traditional healing.’

² I recognise that *indigenous* is another difficult term since it begs the question of who, exactly, is indigenous since people and our non-human ancestors have, according to evolutionary anthropologists, been moving around the globe for hundreds of thousands of years, one group replacing, intermingling with another. Also, ‘indigenous knowledge’ is often used as a catch-all term that would draw together highly disparate practices, as if, as Lesley Green has put it, ‘San knowledge in the Kalahari and Cree knowledge in Alberta are much the same’ (2012:1). Nevertheless, once again, since I write to debates which use this term, it is also a term I employ.

³ Following the arguments of Isabelle Stengers (2010) and Bruno Latour (2013), I recognise that *science* is another problematic term that is used to cover a vast array of different practices and epistemological and ontological commitments.

authority, the apartheid state had used epidemics to justify the segregation of the races; had met the arrival of AIDS in South Africa with racist diatribes about the promiscuity of Africans; and had been involved in the development of biological and chemical weapons (Fassin and Schneider 2003). For some, the links between science, the naturalised 'reality' it produced, and white domination were so strong that the two merged into one. At the advent of a certain kind of democracy in South Africa, members of the post-Apartheid government, including Thabo Mbeki (deputy president 1994-1999, president 1999-2008) and Ministers of Health Nkosazana Zuma (1994-1999) and Manto Tshabalala-Msimang (1999-2008), positioned themselves, very publicly so, in favour of the virtues of traditional medicine and suspicious of 'Eurocentric' science's ability to tackle one of the country's most pressing health problems – HIV/AIDS (Sitze 2004, Gevisser 2007).

Pursuing, on ideological, rather than evidentiary grounds, 'African Solutions to an African problem,' Mbeki sided with various dissident scientists (e.g. Anthony Brink, Elin Papadopulos-Eleopulos, and Matthias Rath), and *their* vested interests, against scientific consensus (Myburgh 2009: 4; Fourie and Meyer 2010). In two of the most (in)famous cases; convinced of the arguments of dissident scientists, Mbeki claimed that a virus could not lead to a syndrome - poverty, not HIV, was the major cause of AIDS, and so antiretrovirals (ARVs), which work against the virus, could not help against AIDS (Sparks 2003). Mbeki's position caused a controversy that extended well beyond the borders of South Africa: in 2000, 5000 scientists from around the world signed the 'Durban Declaration' as a response to Mbeki's stance, stating that HIV does indeed lead to AIDS. Dissident scientists from Mbeki's Presidential Panel wrote a rebuttal to this (Stewart 2000). Equally as infamously, Tshabalala-Msimang consistently argued (from 2003 to 2008) that people should use olive oil, lemon, traditional medicine and garlic as alternatives to ARVs (Fourie and Meyer 2010). This resistance to ARVs – despite a wealth of evidence that they could help people suffering with HIV – slowed the national roll-out of the drugs, leading, according to Chigwedere et al. (2008), to 330,000 extra deaths from AIDS in the years 2000-2005.

In order to counter such a calamitous government position, activist organisations such as the Treatment Action Campaign (est. 1998), and many academics (Fourie and Meyer 2010, Nattrass 2012) took a hard-line mainstream science position – taking scientific proof as the only legitimate form of knowledge. They and many commentators in the 'West' 'denounced [Mbeki's] position as irrational, marginal and paranoid ... a product of local incompetence and error, an opportunistic alliance between a coterie of corrupt politicians and quack scientists' (Mantel 2007). Crewe argues that an orthodoxy quickly emerged in government where opposing views on HIV/AIDS were branded as disloyal and racist (2000: 30).

For much of the first decade of the new millennium, the HIV/AIDS controversy resulted in a trench warfare-like, racially-implicated intellectual-political climate when it came to discussing traditional medicine, or indigenous knowledge in general. Where Mbeki and others – drawing on a naïve cultural relativist reading of science studies - argued that HIV/AIDS science had been hatched in a conspiracy by the media and other powerful Western agents, and that ‘tradition’ was the *African Truth*; scientists (natural and social) said much the same about traditional medicine – that it was a social construction, not ‘real,’ incomparable to the Truth science could reveal. These mutually opposed positions constituted what Green has referred to as the ‘South African Science Wars’ (Green 2012). Each ‘side’ believed it had privileged access to the reality that would transcend all others – nurturing nothing but mutual accusatory resentment (Stengers 2010: 11). In essence, this continued a very long tradition in social science/anthropological writing: that is, to assume that tradition is to science as belief is to knowledge, and culture is to nature (e.g. Tylor 1881; Frazer [1890] 1922; Levy-Bruhl 1912; Evans-Pritchard 1937; Levi-Strauss 1949a,1949b; Turner 1968; Kleinman 1973) and where attempts to ‘bridge the gap’ between tradition and science do so through claiming these to be unifiable through the scientifically-known reality ‘beneath’ belief ⁴.

As a number of authors writing about South African contexts have pointed out, however, such an ultimately divisionary perspective is a poor reflection of reality. For example, Ciekawy and Geschiere (1998) argue that witchcraft – tackled by many traditional healers – is fully of the modern world. Decoteau (2013) points to the ontological pluralism seamlessly negotiated by many South Africans in their everyday experiences of health and sickness. Deacon (2004) and Digby (1995, 2005, 2006, 2008) offer extensive historical research that points to the mutually entangled origins of what today are referred to as ‘traditional’ and ‘western’ medicine. Louw (1998) and Gichure (2013) argue that ‘indigenous’ terms like Ubuntu, used in the diagnoses of traditional healers, should be taken as concepts that can be used to understand contemporary contexts, rather than only subjects of analysis themselves. Ashforth (2010a, 2010b, 2011) argues that the usually applied concept of ‘belief’ should be replaced by including people’s relations with ‘spiritual beings’ and other invisible powers as part of the social context to be understood. Low (2011) argues against the use of the term ‘metaphor’ in respect to Khoesän healing, because healers, he suggests, draw connections rooted in experience, not imposed by belief on disconnected phenomena. Wim van Binsbergen (2003, 2013) argues in favour of

⁴ See for example, Bloom 1964; Cheetham and Cheetham 1976; Copin and Bibeau 1980; Green 1996; Kahn 1996; Berg 2003; Bhengu and Uys 2004; Crawford and Lipsedge 2004; de Andrade and Ross 2005; Mzimkulu and Simbayi 2006; Ally and Laher 2008; Joubert-Wallis and Fourie 2009; Campbell-Hall et al. 2010; Aina and Morakinyo, O. 2011; Juma 2011; and Feigin 2013.

an ‘intercultural philosophy,’ where techniques of divination and healing would be considered part of a shared human epistemology offering knowledge of an expanded reality, of which science glimpses only a particular aspect. Wreford (2005a, 2005b, 2005c, 2007, 2008, 2009) argues for the reality and force of ancestors in particular ritualized contexts, and the importance of sangomas⁵ (diviner-healers) and medical doctors working together to combat different aspects of the suffering caused by HIV/AIDS. And lastly, Green (2007, 2009, 2012), grapples with the problematic ontological and epistemological assumptions implied by cleaving knowledge neatly from belief. These are problematic, Green argues, because, firstly, what does or does not count as ‘belief’ depends on what a person considers knowledge to be - and *why*; and, secondly, because ‘belief’ and ‘knowledge’ are not categories employed by all people.

Traditional medicine and policy

These kinds of nuances largely escaped the policy-makers of the Mbeki era. Closely linked to his vision of an ‘African Renaissance’, Thabo Mbeki’s government attempted to re-affirm the value of previously denigrated knowledges and thus, it hoped, validate and empower the people who have developed and put into practice such ways of knowing (Higgs 2002, Koka 2002, Vilakazi 2002). In 2004, the Department of Science and Technology put into place The Indigenous Knowledge Systems (IKS) Policy, and in 2005 the Traditional Health Practitioners (THP) Act. At the same time as pushing ‘African tradition,’ these policies would – somewhat paradoxically - aim at translating diverse practices with their varying epistemological and ontological commitments into ‘things’ recognisable as objects of modernist knowledge production: commodities and formalized bureaucratic structures. Thus, the remit of the THP is to:

...provide for a regulatory framework to ensure the efficacy, safety and quality of traditional health care services; to provide for the management and control over the registration, training and conduct of practitioners, students and specified categories in the traditional health practitioners profession... (Traditional Health Practitioners Act 2004:3).

Such a ‘regulatory framework’ has proven extremely hard to implement, precisely because this runs counter to many of the ways in which *sangomas*, *inyangas*⁶ (herbalists) and others actually work – through personal relations, dreams, contingent and intuitive knowledge, even ‘trickery,’ that is very hard to formalize and prove. This bureaucratic move has in many cases resulted in legislation that

⁵ Diviner-healers in Southern African Nguni (including Xhosa and Zulu) traditions and languages.

⁶ Herbalists in Southern African Nguni (including Xhosa and Zulu) traditions and languages.

recognizes only those forms of knowledge that can be accommodated within these epistemological, bureaucratic frameworks (Tangwa 2007, Reihling 2008, Meincke 2012). Meanwhile, the main 'drivers' of the IKS policy are:

- The affirmation of African cultural values in the face of globalisation – a clear imperative given the need to promote a positive African identity;
- Practical measures for the development of services provided by IK holders and practitioners, with a particular focus on traditional medicine, but also including areas such as agriculture, indigenous languages and folklore.
- Underpinning the contribution of IK to the economy – the role of IK in employment and wealth creation; and interfaces with other knowledge systems, for example IK is used together with modern biotechnology in the pharmaceutical and other sectors to increase the rate of innovation (Department of Science and Technology [DST] 2004: 9).

IKS and science are held to be separate knowledge systems that could 'interface' for economic gains. A great deal of the IKS policy is devoted to legal, intellectual property (IP) matters: how 'communities' might own the rights to 'their' knowledge, how this ownership could be handled, making provisions for debating these issues as a central importance. Alongside this, the creation of a national Indigenous Knowledge recording system, influenced by the examples of Brazil and India, is touted as a key way to prevent other countries from patenting South African IP (DST 2004: 29). This is not to say that the policy is not understandable. Having decided to follow a neoliberal capitalist model of growth, the government had little choice: it sought to compete in a world dominated by science and technology, and quick access to verifiable and testable data in an effort to govern a country beset by many social, economic, and related health problems. On the other hand, the considerable efforts aimed at commoditizing 'indigenous knowledge' are in many ways antithetical to the understandings of medicinal plants held by people who actually used/use them to maintain their health.

Various laboratories would be set up across the country to facilitate the interface mentioned in the third key driver (DST 2004: 34). With the ultimate aim of identifying the active principles (consisting of particular molecular compounds) within the plants which can then be synthesized and subsequently sold as pharmaceuticals, this approach – e.g. through the medium of Randomized Clinical Trials (RCTs) - would actively syphon off many of the contextual elements that many healers consider essential to the healing potential of the medicines they know and administer (Laplante 2009). Anthropologists, such as Ngubane (1977), Green (2007), Helman(2006), Laplante (2009), and Cohen (2009), have

pointed out that among other things, it is necessary to consider the role of music and dance in healing rituals; the relationship between healer and patient⁷; relations to the spirit world and God; and phenomenological experiences in the landscapes where medicines are found. Whilst a trial may use cultivated plants for their constancy, healers may consider these plants to be useless, having been robbed of the 'life' of wild varieties; or feel that plants sitting in laboratory beacons are being 'choked' (Laplante 2009:10, Cohen 2009). From Rastafarians and *isangomas* (healer-diviners) in Cape Town (Laplante 2009), to Bwist consumers of the sacred Eboga plant (*Tabernanthe iboga*) in Gabon (Fernandez 1982), music and dance are understood to be central to the healing that medicines can effect. Reacting strongly to attempts to syphon these contextual elements off, and echoing my own sentiments, Peter Crossman and René Devisch write that 'Pharmaceuticals are hardly concerned with the social and psychological aspects of African healing arts ... This is manifestly a reductive process which those interested in promoting endogenous knowledge *cannot afford to tolerate*' (2002:105, my emphasis).

In this way, the IKS policy's outlook in large part continues a long tradition in the scholarly approach to medicinal plants in South Africa. In 18th and 19th century South Africa, botanists and scholars such as Anders Sparrman, Carl Peter Thunberg William H. Harvey and Otto Wilhelm Sonder used Carl Linnaeus' (1707-78) taxonomic system to produce comprehensive lists of the many uses the 'natives' found for South Africa's plant species. In the twentieth century this tradition was carried on in the work of Watt and Breyer-Brandwijk who in 1932 (with a second edition in 1962), produced what became the exemplar of academic work on medicinal plants in South Africa: *The Medicinal and Poisonous Plants of Southern Africa*. More recently, compendia of medicinal plants have been compiled by Palmer (1985), Roberts (1990), Smith (1966); Van Wyk, Van Oudtshoorn & Gericke (1997); and Van Wyk & Gericke (2000).

Conceiving of a PhD project

When Mbeki was replaced as head of state in September 2008, he and his government thus left behind a tense and contradictory national political-intellectual climate in respect to traditional medicine and its relation to science. On the one hand, rhetoric that antagonistically promoted tradition in opposition to 'Western' science, had tended to stultify argument and thought that went beyond these 'sides.'

⁷ 'Patient' is another tricky little word. It is has not been at all times, in all places, that a person going to see a shaman, sangoma, inyanga or other 'healer', has been referred to as a 'patient', or an equivalent of this word. As Catherine Burns (2014) has pointed out, the notion of 'patient' is very much associated with certain kinds of 'modern' health care systems where people have to travel outside of their immediate social unit to access care, and have to wait *patiently* in a waiting room to see the specialist. Nevertheless, I employ the word here because it is one (or the Afrikaans equivalent, pasiënt) that *kruiedokters* themselves use, and because people who do go to see *kruiedokters* do often have to wait to see them.

The racially-inflected polemic re-inscribed old, and destructive, colonial and apartheid divisions between ‘black indigenous’ and ‘white scientific’ knowledge. On the other hand, in order to compete economically and trade with other nations, the Mbeki government had placed considerable importance on using science to verify and commoditize indigenous knowledge.

Traditional medicine, science, and medicinal plants in South Africa would, I thought in 2009, be an important topic to follow: not only to engage in on-going debates about the new old divisions, but also to offer an alternative account of real, living knowledge plurality in the lives of South Africans for whom the political rhetoric might be less important than finding everyday solutions to the many health problems that beset the population (Decoteau 2013). The country had a new president (Jacob Zuma) and a new, pro-biomedicine minister of health (Aaron Motsoaledi, who is also a qualified medical doctor). The terms of the national debate on traditional medicine and science promised to shift, and this suggested that it might be an opportune moment to conduct micro-scale ethnography that could engage in macro-scale national debates in novel ways. At that point⁸, there were no empirically-grounded studies that studied the production of scientific knowledge about plants *and* simultaneously studied the production of traditional knowledge about the same. Thus, in particular, I would want to trace actual *unfolding* relations of diverse knowledge practices, as opposed to a ‘meeting’ of knowledge ‘across’ perceived boundaries. Such a study would be a valuable contribution to knowledge.

Fortunately, my supervisor Lesley Green – an anthropologist interested in post-coloniality, democracy and knowledge – had been in dialogue with Professor David Gammon (fig.1), an organic chemist in UCT’s Department of Chemistry, who was leading a suitable project. She suggested that he and I be in contact. I first went to see David in his office in late 2009 and I soon felt that this could be an enormously productive project to be a part of. On the one hand, David had a deep appreciation for the creativity and ingenuity of natural products chemists who, through the years, had



Figure 1. David Gammon.

isolated and synthesised from plants and other organisms, the molecular compounds that constitute the pharmacologically active aspects of many of the world’s key drugs. Likewise, he had a great respect for the scientific method of trial and error – of changing one’s approach, and theory, in response to

⁸ Excellent studies of this sort do now exist, in particular coming out of interdisciplinary projects at the University of the Western Cape, South Africa (see for example Gibson 2011; Aboyade et al. 2014).

errors or unexpected results. On the other hand – as he would later put it in a conversation in October 2011 - he felt

... almost by association [...] guilty for the sort of disregard for environmental sensitivities [such as when] chemical industries [...] have gone up and spewed out vast amounts of stuff [and] the pharmaceutical industry, there's a part of it that has been terribly exploitative and driven by profit margins and what have you. The very fact that most pharmaceutical companies ignore the vast majority of 'third world' diseases of Africa, because it's simply not profitable for them [...] what kind of morality is in that?

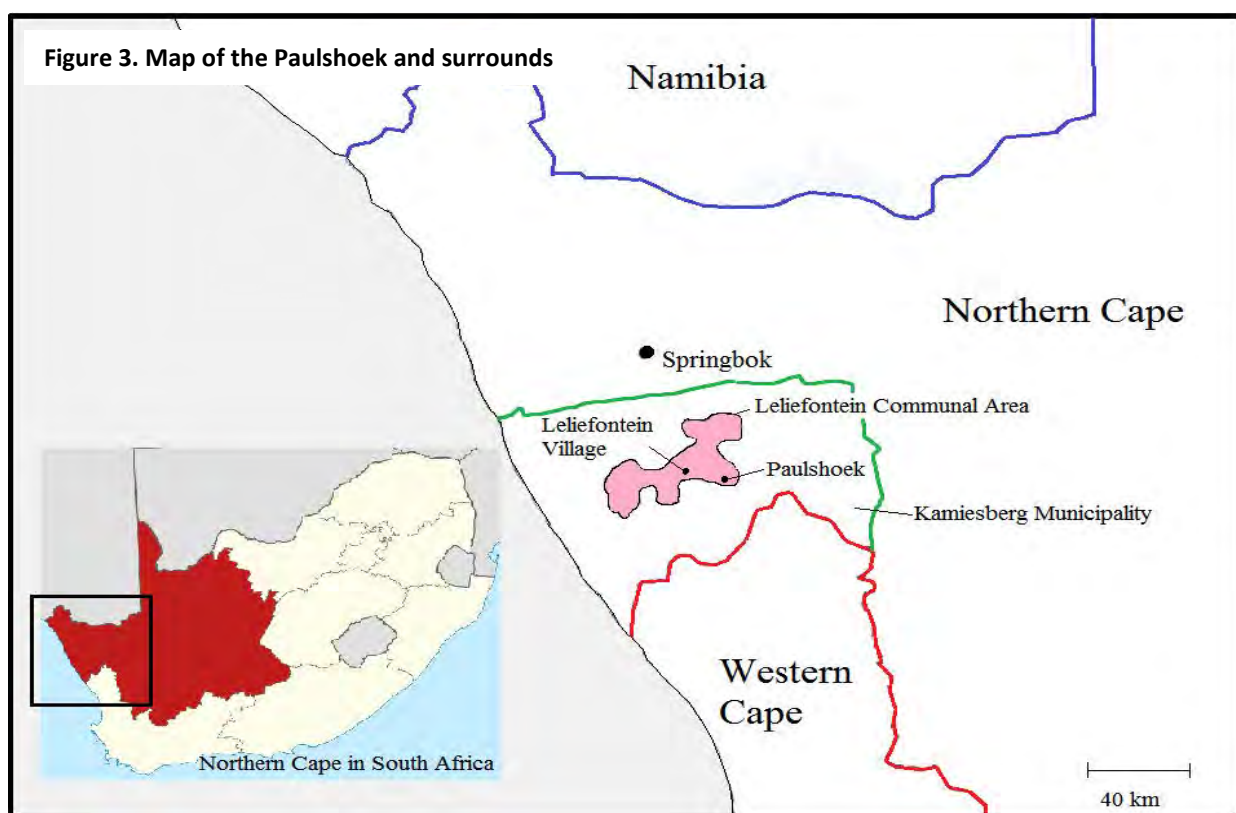
As he wrote in a later *South African Journal of Science* article (Green et al. 2015), David was also concerned that natural products chemists often misunderstood, or paid scant attention to, the socio-environmental contexts in which medicines are used, and are efficacious. His concerns aligned with on-going contemporary debates amongst other natural products scientists: leading voices like Geoffrey Cordell, for example, who argues that natural products chemists should be more aware of the environmental impacts of their work; that they should aim at developing drugs to address the health problems of a growing world population, in particular those in poorer areas that might not have access to the medicines they need; and questions who benefits from the profits that companies make (Cordell and Colvard 2005, 2007, 2012 see also Heinrich et al. 2009). David's thoughts about anthropology and science echoed those of a number of scholars working within the field of ethnopharmacology, who, for nearly twenty years had been calling for

... researchers to strive for a more holistic, theory-driven, and culture- and context-sensitive study of the pharmacologic potential of (largely botanical) species used by indigenous peoples for medicine, food, and other purposes (Etkin and Elisabetsky 2005: 24).

With the above concerns in mind, and support from UCT's Vice Chancellor's Strategic Research Fund, David had been in discussion with ecologist Professor Timm Hoffman (fig. 2), of UCT's Plant Conservation Unit. Over a period of more than fifteen years, Timm had developed strong research relationships with Paulshoek - a small village with a population of around 405 inhabitants, located in the Leliefontein Communal Area, Kamieberg municipality, Northern Cape province (Duijnste 2011: 45; fig. 3).



Figure 2. Timm Hoffman, in the veld near Paulshoek.



This pre-existing, long-term relationship, David felt, could be key to carrying out medicinal plant research that might be more 'holistic, theory-driven, and culture- and context-sensitive'. He had begun to recruit various graduate students to his project that would study the plant chemistry of plants found in and around Paulshoek, one of whom was PhD student Nicola Wheat. Another graduate student, molecular biologist Amelia Hilgart, would later also join the project (fig.4). Her project would focus on the dynamic metabolic processes going on in plants that Paulshoek sheep and goat herders had previously told Timm were poisonous to their animals, but only at certain times of year. Her work is not a focus of the present study, although conversations with her, and experiences of her work, have influenced the arguments I make.



Figure 4. Amelia Hilgart (left), Nicola Wheat (centre), and the author, near Paulshoek.

With a background in botany but an interest in plant chemistry, Nicola was planning a project that would combine in-depth ethnobotanical survey-type studies of medicinal plant use, with metabolomic and phytochemical studies, in order to better understand the pharmacological basis of some of the plants used and found in the area.

As part of an attempt to make chemical science work more in favour of poorer parts of the world, Nicola would make use of ‘Screens To Nature’ (STN) mobile bioassay ‘kits’ developed by The Global Institute for BioExploration (GIBEX). Established by Rutgers, the State University of New Jersey, and the University of Illinois and Urbana-Champaign, GIBEX uses STN technology to enable screening of plant material for pharmacologically active principles in the field, i.e. the ‘natural’ environments where potential drug-compound-carrying plants are usually collected. This new technology means that plant material does not have to be removed from the sites where plants grow, and where people find,

harvest, prepare and use them as medicines. Nicola was hoping to work with Paulshoek-based people knowledgeable about medicinal plants as she used these kits to screen plants from the area. Such 'knowledgeable people' included *kruiedokters* (herbdoctors) with whom she hoped to conduct a workshop in order to provide them with the skills and equipment that might enable them to use the kits in their own time, on their own terms. *Kruiedokters*, usually in exchange for money and sometimes for gifts of goats, sheep, and favours, prepare plant-based medicines and other remedies for a wide range of illness and ailments – from blood pressure and diabetes, to marital problems. David, Nicola and Timm had been to visit and talk with a number of *kruiedokter*⁹s who worked in Paulshoek, and David had been intrigued by their claims to be able to diagnose patients at vast distances, by their different techniques of diagnosis/divination, of their diagnoses of ailments caused by 'spells' and other mysterious 'attacks.' He was intrigued, but also unable to fit their claims and practices into paradigms of research and knowledge with which he was more familiar:

... When you've got, if you like, scientists, or people coming from a very kind of hard, rational end of the spectrum hearing about these kinds of things [the 'magical' aspects of 'traditional healing'] and so on. I mean, there is this issue which one has to deal with of the people who say 'look this is mumbo jumbo, it's complete nonsense' ... how does one keep a conversation going and find some kind of understanding of what's going on which doesn't just immediately dismiss it like that?

David had felt that the project could benefit from the perspective of an anthropologist who might help with understanding the work and logics of *kruiedokters*, and to possibly facilitate such conversations. He had been in contact with Lesley, who put me in touch with him.

Initial PhD proposal and research questions

David's concerns about chemical industries, about who benefits from natural products research, and about the importance of ethnographic context when considering medicinal plants, might not strike many anthropologists as radical: as a discipline, anthropology tends to side with 'the little guy' and pharmaceutical industries have long come under attack for their exploitative and extractive approaches (van der Geest 2006). Also, I am in agreement with Alf Hornborg's (Karl Marx-inspired) argument that machines should not be understood as neutral objects of technological achievement,

⁹ A note on italization: most Afrikaans terms are always italicized. However, terms such as *kruiedokter*, *toor*, *krag* and *wind* are only italicized until they have been fully explained. Thereafter I practice a common editorial procedure and include these often used terms without italicization. I hope this contributes toward a more fluid and less distracting read.

but as machinations - concrete manifestations of (normally unequal) social relations (Hornborg 2001, 2006: 31). Thus, GIBEX technology derives from the know-how of an often exploitative pharmaceutical industry, and is touted as a means for the poor to have access to the truth offered them by scientific knowledge, and in this way become 'developed'. Clearly aware of how pharmaceutical companies are very often viewed as exploitative of poorer nations and people, and of related Intellectual Property (IP) issues surrounding bio-exploration, the GIBEX website announces that its general aims are to:

1. Facilitate the discovery, study, development and commercialization of natural product-based therapeutics from plants, fungi and bacteria (bio-therapeutics) using the "reverse flow" approach.
2. Lead the world in ethical bio-therapeutic research.
3. Promote human health, scientific cooperation, biopharmaceutical research, biodiversity conservation, entrepreneurship and economic development.
4. Assure full compliance with the Convention on Biological Diversity and all national and international bio-exploration laws.
5. Develop the "reverse flow" approach to facilitate educational, training and capacity building opportunities in the source countries.
6. Generate major research funds from different national and international funding agencies and organizations (GIBEX, N.d).

Put another way, 'development' creates the conditions for the creation of the poor and exploited, and is then offered as a solution to the poverty it has brought into the world. With his characteristic humour, Slavoj Žižek (2008: 21) has likened such contradictions to a chocolate laxative - 'eat the very thing that causes constipation in order to be cured of it'. My point is not to reject these aims out of hand, but that caution is needed when considering any business-oriented scheme to overcome inequality and poverty. GIBEX's vision is one of a forward-moving modernity educating and enriching the poor and exploited of the world through a hypothetical ethical global capitalism propped up by universalist science and benign technological invention. In this vision, education means scientific education, development means business and commercialization, and as such the rhetoric essentially shuts down any possibility of the plurality of knowledges.

However, as James Ferguson cogently argues in *The Anti-Politics Machine*, the (often laudable, if sometimes misguided) aims of development projects are often very different to the eventual

outcomes, which ‘may be only a baroque and unrecognizable transformation of the original intention’ (1994:17), brought about by the actions of real people who engage with and reinterpret projects ‘on the ground’. In *The Pasteurization of France*, Bruno Latour (1988) mirrors this perspective in relation to the construction of scientific knowledge, when he writes that ‘An idea or practice cannot move from A to B solely by the force that A gives it; B must seize it and move it’ (1988:15-16). In other words, in order to understand how knowledge emerges, it is necessary to follow the actions of specific actors who can decide to ignore, transform, credit, or discredit ideas according to a multitude of interests and positions.

Also, as John Law (2004), Annmarie Mol (2002), Latour (2013), Tim Ingold (2000) and others have pointed out, knowledge, and skill, scientific or otherwise, do not simply arrive in the minds of knowers: these all imply a set of relations of things, people, places, in which knowledge can emerge. Any experimentally-proven fact relies on the existence and working of experimental equipment, and must be brought in to practical use by a knowledgeable, and *enskilld* experimenter. In a laboratory setting, this additionally requires a wide network of phenomena, including, among other things: funding, histories of the written word, mathematics, the industries that produce the equipment, and journals that are referred to and in which data are published. Without these things, such knowledge is deprived of that which confers its validity. But it is not just laboratory-developed knowledge that requires a multifaceted context to be established in which it is possible for one to be said to know. For someone in the Kamiesberg mountains to know which medicinal plant to use, how, and at what dosage, requires that either they or someone else has previously experimented with that plant or something similar. That normally implies a series of social-ecologically established practices and skills, and ideas about how the body works, how plants might affect that body, and what ‘health’ is. In other cases, finding a medicinally active plant might require skill and abilities in a certain kind of divination process (discussed in later chapters) that has its own history and logics. In other words, knowledge is not *just* a question of an unveiling of truth from a pre-existing world, but *at the same time* brings novel relations into the world and in this way is constitutive of an aspect of reality itself. As John Law has put it, ‘realities and distinctions are always done in practices ... they simply do not exist outside practices’ (Law 2007:17).

This project, led by a scientist interested in serious dialogue across disciplines and ways of knowing, would put the techniques of natural products chemistry into direct, practical conversation with kruiedokters and their techniques of plant knowledge and use. It could, I thought, lead to the emergence of – even momentarily existing – ways of knowing, and contexts in which these have validity, that could help trouble the science/indigenous categorizations and distinctions. In particular,

it would facilitate engagements between diverse knowledge practitioners that would potentially be less 'artificial' and controlled than the laboratory-based, RCT 'interfaces' of knowledges as envisioned in the IKS policy. I put together a PhD proposal that would attempt to answer the following key questions:

What (a)symmetries are there across the medicinal plant knowledges of scientists using GIBEX technologies and knowledgeable residents of the Leliefontein communal area? What useful role can the anthropologist play in relation to the dialogues between these parties?

With an awareness that the 'knowledges of' scientists and residents might well be blurry, shifting categories, I hoped this would enable me to articulate an ethnographic translation of South Africa's knowledge landscape in ways more fitting to the contemporary context - ways that would trouble stale and outdated dichotomies and divisions. I could test the usefulness of the tools of anthropology for producing such translations, whilst following the supposedly benign development proposed by GIBEX, as it unfolded in real time.

The proposal was accepted by the relevant university authorities, and in May 2010 I travelled with Timm to Paulshoek for a short pre-research trip. As Timm drove (I did not have my own transport) the four hundred kilometres directly north from Cape Town on the N7 highway, the landscape transformed from the green fynbos¹⁰-covered mountains of the Western Cape, to the red-soiled, shrub-covered, dry expanses of the Northern Cape. We turned off from the N7 at the small town of Garies. From there it was an hour's drive along a gravel road, high up into the Kamiesberg mountains. At last, we turned into Paulshoek, a collection of around one hundred homes, some quite substantial brick structures, other small, corrugated metal 'shacks', dotted over a dry, red hillside, framed by a huge granite dome – a geological formation that characterises much of the Kamiesberg mountain range. This being May, the temperature was quite mild and pleasant, although I knew it could regularly get close to forty degrees Celsius in summer and minus a few degrees in winter. My first impression was of the material poverty of many of the people who stood watching our approach from their doorsteps, and the utter remoteness of the place - the sheer overwhelming presence, harsh beauty, and scale of the red, rocky, landscape that so completely swallowed the village in its imposing, dusty vastness. Yet despite its geographical remoteness, the socio-political-ecological realities of the area have been bound up with the history of the emergence of modern South Africa ever since Jan van Riebeeck settled the Cape in 1652 (Sharp 1984; Sharp and West 1984; Rohde, Hoffman & Allsopp

¹⁰ Literally 'fine bush' – a kind of heathland vegetation found mostly in the Western Cape, characterised by scrubby plants with small, thin (i.e. 'fine') leaves.

2003; Webley 2007, Hoffman and Rohde 2007). It will be helpful here to contextualise Paulshoek and the Leliefontein Communal Area in historical context.

Paulshoek and the Leliefontein communal area

The encroachments of European settler farmers in the late 17th and 18th centuries forced many pastoralist Khoi¹¹ people in the Namaqualand area to seek the relative protection of land that Christian Missions stations could provide (Rohde, Hoffman & Allsopp 2003; Shaw 1841). One such missionary was Barnabas Shaw, of the (Methodist) London Missionary Society, who, at the request of Namaqua 'chief' Wildschut in 1816, set up the Leliefontein mission, high in the Kamiesberg mountains. In his memorials it is clear that Shaw feels it his duty to bring the heathen Namaquas to the Christian Truth. 'They formed no correct notions of a Supreme Being,' he wrote, 'and indeed many were unconscious of the very existence of God.' (Shaw 1841: 77). He claims that people took happily and enthusiastically to Christianity, because 'I had no strong holds of idolatry to attack, nor deep-rooted erroneous doctrines to refute; but simply to preach the Gospel as the power of God unto salvation to everyone that believeth' (Shaw 1841: 82). A frustrating propensity for 'superstition' was the extent of a 'religious life' that Shaw appears to recognise in those he had come to convert. Given the complex worlds of beings, forces and relations that characterized the realities of other Khoi people, as described in various other works, it is doubtful that this is entirely accurate (e.g. Schapera 1930; Bleek 1932, 1933, 1935; Lloyd 1889; Low 2004). What is certain is, first, that Shaw saw a civilized, Christian life as synonymous with settled farming – not the 'wandering' life that people were accustomed to (Shaw 1841: 117); and, secondly, that Shaw and his missionary heirs were very successful in spreading their Word. Christianity – and overwhelmingly Methodist Christianity – today dominates the religious life of most people in the Leliefontein Communal Area. Christian rituals of christening, marriage, and funeral constitute, mark and sanctify significant rites of passage in most people's lives – in actuality for those who can afford them, ideally for those who cannot. Many carry on a personal relationship with '*die Here*' (the Lord) and community meetings and other gatherings are regularly begun with a prayer to Him.

In 1816, a substantial plot of land was associated with Shaw's mission, available for Namaqua people to graze their cattle on, and continue their 'transhumant' lifestyle: i.e. moving with their livestock according to annual patterns of rainfall and temperature changes. Over the centuries, as a result of commercial farmers taking up land around the mission lands, and colonial and apartheid policies that increasingly rigidified racial boundaries and hierarchies, the population of (what became the

¹¹ A name often given to the mostly pastoralist, sheep-herding people who lived in and moved around large swathes of Southern Africa before the large-scale arrival of Europeans in the seventeenth century.

Leliefontein 'Coloured'¹² Reserve' in 1913) rose, just as the land available for keeping livestock diminished (Rohde, Hoffman & Allsopp 2003; Sharp and West 1984; Boonzaier et al. 1996). These processes have fuelled widespread poverty, ecological degradation, an increasingly sedentary life, and the settlement of ten permanent villages within the reserve: one such village being Paulshoek. With the end of apartheid in 1994, the 192 000 ha 'coloured reserve' became a 'communal area', reflecting the fact that, in theory at least, residents have access to, and use of land that is held in common: to keep sheep and goats, to collect firewood, medicines, and other resources. Despite various government and non-governmental development projects, including land reform that has added 33,000ha to the communal area, many people still struggle to get by.

These projects and initiatives have included the nation-wide, government-backed Reconstruction and Development Programme (RDP), and the Growth, Employment, and Redistribution (GEAR) economic strategy. In Paulshoek, these have led to the building of around forty brick homes, and the provision of water, electricity and pit-latrines to nearly all houses. Many homes also have phone lines. Today, most people in the Leliefontein communal area live in brick or corrugated iron houses – the easily transportable reedmat houses, *matjieshuise*, used by earlier, more mobile, pastoralist generations, are only used by a small number of people, mostly in Nourivier (one of the ten villages). Free medical services are now available from a mobile clinic that visits approximately twice a month, staffed by biomedically-trained nurses, and there is also an ambulance service that can come for urgent cases (Duijnste 2011). There are now several shops, small general stores, and a liquor store in Paulshoek that means that people no longer have to travel to distant farms and towns to get their weekly and daily supplies. While biomedicine is available, and made use of by the vast majority of people through government-provided visiting clinics, plants and other medicines collected from the Kamiesberg *veld*¹³ and mountains are widely used by many people.

In 2000 government poured millions of rands into the building of a tourist centre, including a large, white-painted guest house overlooking the village. Intermittent building projects - of water pumps, for example - also offer short-term work. Most recently (to the final quarter of 2014), a project to pave the main road that runs through the centre of Paulshoek employed a large number of men and women. Development funds from the San Council have found their way into Paulshoek and at least one other Leliefontein village (Nourivier). This is because the uses of *kougoed*¹⁴ (a species of

¹² 'Coloured' being the racial label given by the Apartheid state to many groups of people considered to be neither white nor black. The term is still used today and is generally not considered to be perjorative. People in the Leliefontein communal area regularly referred to themselves as '*kleurlinge*', or coloured people.

¹³ Literally 'field', people use the word *veld* to refer to uncultivated land outside of towns and villages.

¹⁴ Literally 'chew stuff', this is made from *Sceletium* species of succulent plants. It is an important medicine in the Kamiesberg area. Usually, after a lengthy process of preparation, it is held as a small wad in the mouth so

sceletium), a mild psychoactive succulent plant used by kruiedokters and others to treat a wide array of ailments, was explained to researchers (Fiona Archer 1994, and Nigel Gericke 2000) by knowledgeable residents of these villages. Archer, with family connections in the Kamiesberg, and Gericke have played a key role in attempting to turn this knowledge in to a viable development project generating financial support for community projects. Through a benefit sharing agreement between Nigel Gericke's HG&H Pharmaceutical company and the San Council, a proportion of profits from the marketing and selling of Sceletium-derived Zembrin® drug should return to Nourivier and Paulshoek (Steenkamp 2010). In 2011, this drew the attentions of SABC's 50-50 programme and a number of journalists who covered the granting of Sceletium Bioprospecting and Export permit towards this purpose.

Since the end of Apartheid, Paulshoek, the Kamiesberg and Namaqualand in general have come under intense social and natural science study, bringing employment for some who have worked as research assistants and 'para-ecologists'. Timm has himself employed a number of people in Paulshoek to help with his research and has brought many students to work in the area. Studies have been carried out, among other things, on insects, animals, plants, economy, social relations, and kruiedokters. The Germany-based environmental science organisation Biodiversity Monitoring Transect Analysis in Africa (BIOTA) has also played a leading role in employing people in the area in its research projects.

And yet despite, or perhaps in large part *because* of the Kamiesberg's increasing entanglement in the economy of the 'New' South Africa, these efforts at 'development' have had very circumscribed positive effects. Most visibly, the tourist centre attracts no tourists and now sits empty, stripped of its beds, pipes and plumbing by residents who saw more value in its internal organs than its on-going, and perhaps badly planned and mismanaged life. A 'white elephant' people call it. Unemployment in the Kamiesberg as a whole stands at over 30% (with youth unemployment at over 40%), and in Paulshoek over 85% (Duijnste 2011; Statssa 2014a). Where there is work, it is often in low-paid industrial, retail or domestic jobs far from home, in larger towns like Springbok or Vredendal, or in 'die Kaap' (the Cape Town area) where people face, and fear the threat of robbery and violence. Work might also be found on nearby farms, herding or laying fence, where pay can be as low as R60 a day and where workers have little choice but to buy supplies, at an inflated price, from their employers. Racial distinctions and prejudices are widespread with people in the reserves making it very clear to me that some – not *all* – white farmers are 'racists'. Memories, before and after the end of apartheid, of beatings and other mistreatments people and their friends and relatives have received at their

that its bitter, mildly psychoactive juices can be absorbed into the body. Used, among other things, for the treatment of stress and wind ('magical' and 'natural'), and sometimes just for the pleasure of its intoxicating effects.

hands are bitterly recalled. Political-economic processes that put large tracts of land in the hands of white farmers, while over-populating the communal areas, have left unmistakable marks on the landscape. Standing at the fenced border between communal land and commercial farm land, the difference in the life of the *veld* is apparent. Communal land is clearly overgrazed and denuded, whilst commercial land, where farmers have enough land to give the *veld* time to recover, is thickly covered with plants: history in the land, the land in history. Raising and maintaining sheep and goats on such denuded land is no easy task.

Because of inflation in the South African economy, people's overall income in terms of buying power in Paulshoek has actually fallen since 1995, so that the median in 2011, according to household surveys conducted in Paulshoek by Leontine Duijnste, was around R6017 per capita per year (Duijntee 2011). Many people live on substantially less than this. While people do have access to shops in the village, prices in these shops are much higher than in larger towns and cities because of the transport costs associated with getting supplies to the stores. The food people can afford tends to include large proportions of carbohydrates such as mealie meal and flour whilst fruit and vegetables are rare and expensive. People's diets, alongside widespread alcohol abuse drive the serious health problems like high blood pressure and diabetes. While people do have access to state subsidised electricity, by the end of the month (since benefits arrive at the beginning of the month), many cannot afford to put credits in the meters that control their supply. Alcohol abuse is very often associated with violence and fights, stabbings, and attacks with other kinds of heavy metal implements were common during my stay – most often amongst young people having a 'party'. Suicide is also not uncommon, particularly among young men, and the Northern Cape has by far the highest suicide rate in South Africa (5.1%) (Statsaa, 2014b). People I know in Paulshoek could name at least seven people who had committed suicide in recent years, including one young man I knew personally (discussed in chapter three).

As discussed in later chapters, material inequalities fuel many of the jealousies and resentments associated with accusations of *toor* (magic, witchcraft). Illnesses and ailments connected to this are a central component of many *kruidokters'* work. Wealth differences have also been entrenched, paradoxically, by processes of land reform. As Rohde and Lebert (2007) point out, the 33,000ha acquired from commercial farms for the commons is in areas far from Paulshoek village, benefitting those with the capital necessary to travel to these areas, and employ others to work there for them, i.e. not the majority of poorer farmers.

Indeed, despite their national and international political-economic entanglements, most of the Leliefontein villages *are*, in many ways, remote: a chief complaint repeated by many people that live

there is that roads connecting villages to larger towns such as Springbok and Garies have, despite various political parties' promises, not been tarred - a development that would reduce travelling times considerably. But even were roads to be tarred, it would remain a constant struggle for many to find their way to and from such places to visit relatives and friends, bank, shop, work, and visit hospitals and doctors. Although state-subsidised medical facilities are available across the Kamiesberg region, if people want to visit relatives and friends in hospital, or suffer an ailment which they feel is serious but not urgent enough for the ambulance to be called, they may need to make other plans to get to town for health-related reasons. People can rarely afford to pay neighbours who own their own vehicles to take them to and from towns and villages. If they do, they may well put themselves in debt through having to borrow the money from a neighbour. In addition, Paulshoek, along with several of the other Leliefontein villages, has no, or extremely limited, cell phone reception. When you have to walk, cycle, or donkey cart not insignificant distances, often in searing heat, or freezing cold; when you fall into debt just to visit a sick relative; and are cut off from communication networks that you know most other people in South Africa have access to, the mountains of the Kamiesberg and Leliefontein communal area can feel very remote indeed.

Social-ecological relations that sustain life

In making life in very difficult circumstances, people necessarily draw on mutually entwined social-ecological relations: in the everyday round of sociality, of sitting, chatting, playing and drinking, in which cups of coffee and tea are shared; in giving, receiving, lending and borrowing money, food, and other necessities from neighbours, who are also often friends and relatives. The *veld* and the livestock that some people are able to keep there, provides in many different ways. Income from livestock provides five percent of Paulshoek's income (Dujnstee 2011): a small proportion that nevertheless affords some leeway in very constrained conditions. Those who keep livestock – from the several hundred kept by richer individuals and families, to the handful kept by the poorest – do so on *veeposte* (stockposts). These are usually composed of a pen for goats and sheep to sleep in, a small shack for the herder/owner to sleep in, and a *skerm* – a circular, domed structure, built of a range of materials, from plastic and metal, to wood and bushes found in the surrounding *veld*. They are usually around six to eight metres in diameter, with a hole in the roof that acts as a chimney (fig. 5).



Figure 5. Marianna's family's skerm, constructed by her brother, just outside of Paulshoek.

Veeposte can be anywhere from a few hundred metres to a few kilometres away from the Leliefontein villages. Life can be lonely, and tough, working on these posts, with searing summer droughts and freezing winter temperatures sometimes leading to the deaths of entire flocks. Nevertheless, having a stockpost in one's possession, or within one's extended kinship network, means that at certain times of the year, shop bought milk can be substituted with the copious supply of goat's milk produced by females to suckle their lambs. At other times, shop bought meat can be substituted by sheep or goat meat – which is far superior in taste and *krag* (power, vitality, strength, see chapter three for further discussion of this key concept). For wedding and funeral meals, being able to gain access to or provide kin with '*slagdinge*' ('slaughter-things', goats or sheep) is of great importance for maintaining social networks. Although stockpost owners can rarely afford to pay much to those whom they employ as shepherds, these also supply a source of cash and food-for-work for unemployed youth and adults (normally men).

Communal access to the *veld* supplies firewood that people rely on when they cannot afford to top up their electricity meters, and an invaluable source of warmth in the bitter Kamiesberg winters. And many of the medicinal plants and other medicinally used substances used in the area are sourced from the *veld* and mountains of the Leliefontein communal area itself. Several studies have looked at medicinal plant use, and the work of *kruiedokters* in Paulshoek and the Leliefontein Communal Area more generally.

Existing literature on Kamiesberg *kruiedokters* and medicinal plant use

Studies that in part or in entirety have focused on the Kamiesberg villages and or towns, include Archer's work (1985 [with Whittaker], 1994) that contains a wealth of information about the different

methods and techniques people employ to make use of the medicinal potential of plants and other substances collected in the Kamiesberg *veld* and mountains. One of South Africa's best known and often referred to books on medicinal plants, Van Wyk, van Oudtshoorn & Gericke's (1997) *Medicinal Plants of South Africa*, drew on research with several Kamiesberg kruiedokters. Kruger's (2006) anthropological study involved interviews carried out with several Paulshoek-based kruiedokters. Kruger showed very clearly that the skills and life-style associated with stock-farming are closely connected to people's knowledge of the plants, medicinal and otherwise, of the *veld*. Through spending long hours watching and contemplating the *veld*, and watching what plants sheep and goats eat, and what plants they avoid, helps shepherds to identify potential medicines.

Nortje's (2011) Masters thesis includes many details on the plants and other animal and mineral substances that people across the Leliefontein villages know and use for health related purposes, as well as some of the ideas behind these. The findings of Nicola's PhD thesis (Wheat 2013), focused on one village, is somewhat at odds with Nortje's assertion of 'rapidly disappearing' 'traditional knowledge' in the Leliefontein village. Wheat's study uses survey data to compare medicinal plant use in Paulshoek in 2011 with Goldberg's (1998) study of a similar kind. Goldberg's study showed that 70% of people had used plants for some kind of health related issue in the previous year, while Wheat's found the number to be 70.4% - a remarkable continuity over more than a decade. The most common use people made of medicinal plants, Wheat found, was for colds, influenza, stomach ache and general aches and pains (Wheat 2013). As in Goldberg's study, Wheat also found that people would try using plants first, then go to the clinic, and finally go to see a kruiedokter if the first two were not successful. In other words, medical pluralism is the norm with locally-sourced plants and kruiedokters an important resource in people's everyday struggle for wellbeing and health.

The practices and ideas described in these works show many similarities with those described in studies carried out in wider Namaqualand. These include P.W. Laidler's (1928) study *The magic medicine of the Hottentots*, a short study that is now one of the most oft-cited works on 'Khoisan'¹⁵ healing practices, knowledge and ideas. Laidler, a medical doctor, spent four years in Namaqualand 'questioning, checking, and corroborating statements made by many herbalists' (Laidler 1928: 434). Isaac Schapera drew on Laidler's work in his sections on healing and medicine in his classic study *The*

¹⁵ 'Khoisan' is a fraught and politically charged term, an invention of European scholars used to group together historical hunting and gathering San or Bushmen and more pastoralist Khoi people, based on similarities of language, beliefs, and practices. While Low's work (2004) would seem to suggest that there are indeed many of these, quite historically deep similarities, as with any term used to label and define marginalized people, it is not without its problems. The South African San council has recently made the political move of disavowing the term to distance themselves from (what they view as fraudulent, self-defined) Khoisan movements and claim their sole right to speak for all San peoples of South Africa (Steenkamp, A. 2010). I use the term, when it is used by authors I cite, with full recognition of these tensions and problematics.

Khoisan people of South Africa (1930). Peter Carsten's work (1966) likewise includes many similar ideas and practices around health and magic in Steinkopf, another of the 'coloured reserves,' of Namaqualand. Van Wyk's (2008) review of available literature on what he terms 'Cape herbal medicine' suggests that such similarities stretch beyond Namaqualand, and compose – according to him - 'a system' that stretches from the Cape floristic region to Namaqualand and to the Eastern Cape. In more recent years, the medicinal plants of Namaqualand have attracted quite intense ethnobotanical and ethnopharmacological attention – and these also show a number of similarities, including in terms of medicines used, and ideas behind these, with the Kamiesberg-based studies mentioned above (e.g. Gericke and Viljoen 2008; Smith et al. 1996; Van Wyk and Albrecht 2008; De Beer and Van Wyk 2011).

Limits of the literature

In terms of names of species of plants and other medicines used, how, by whom, and why, there is a wealth of information contained in the existing Kamiesberg studies – information that has helped me to understand the work of kruiedokters, and helped me formulate questions and research methodologies. However, what are missing in these works are, firstly, an account of the contextualised *processes* involved in kruiedokter work; and, secondly, an attempt to understand and *think with* the concepts central to healing logics and to people's sense of wellbeing and health.

Echoing the abstracting move mentioned above in relation to the IKS policy, the existing ethnobotanical and ethnopharmacological literature documents medicines, their use and ideas about those uses, as 'bits' of knowledge, cut off from the process in which they emerge. For example, Nortje's (2011) study of the Leliefontein Communal Area aims to address what she perceives as the problem of 'rapidly disappearing' ethnobotanical 'traditional' medicinal plant knowledge and follows approaches employed by van Wyk (2008), and De Beer and Van Wyk (2011). These scholars attempt to produce a *complete* map of 'Khoi-san' plant knowledge and medicine before it is gone forever. Promoting a technique of rapid ethnobotanical appraisal known as the 'Matrix Method' this constitutes an attempt to numericize people's knowledge, through two concepts which the method introduces

... the Ethnobotanical Knowledge Index (EKI), a quantitative measure of a person's knowledge of local plant use (value between 0 and 1), and the Species Popularity Index (SPI), a quantitative measure of the importance or popularity of each species (value between 0 and 1). (De Beer & Van Wyk 2011: 741)

Explicitly linked to a need to record indigenous knowledge in order to protect South African Intellectual Property, in terms very similar to the IKS Policy (Van Wyk 2008), such an approach risks many of the pitfalls of the IKS policy itself. It links knowledge directly to particular 'cultures' so that a particular kind of knowledge becomes inextricably connected to the past. In hunting down instances of plants and their uses, and purposefully 'scoring' knowledge according to an abstract system of value, it removes knowledge from the contexts in which plants are used, the complex weave of temporally unfolding relations in which efficacies and potencies actually live and find purchase.

In addition, barring Kruger's 2006 study that recognises the mutual constitution of 'nature' and 'culture', the literature in general tends to proceed from a position which assumes *real* reality to be that of a universalized nature known by the techniques of the natural sciences. What plants and other medicines *really are* is assumed to be in the chemical-biological processes as can be known by these techniques. Those aspects or properties of plants which do not fit with this model, labelled 'supernatural (Nortje 2011: 134),' 'beliefs' (Nortje 2011: 48; Wheat 2013:45) or 'superstitions' (Nortje 2011:48). In agreement with the various writers, mentioned above, who have challenged this neat cleavage of belief from knowledge, culture from nature, tradition from science, I suggest that on this point the existing literature offers a skewed reflection of reality. Thinking about how medicines 'work,' how they are drawn on to influence people's wellbeing, is limited to medicines' physiological action upon a universalized body, coupled with the psychosomatic effects the 'beliefs' or 'superstitions' people hold about those medicines. Concepts of the body, of health, of life and death are considered cultural add-ons to the real reality below: that is, where things 'really happen', in the causal realms of physicality and matter. In other words, modernist metaphysics holds adjudicatory sway in the analyses that are offered, on what can and cannot exist.

The existing literature is meticulously researched and presented, but, as with any study, has its own commitments and limitations. My aim is to point out that other ways of studying kruiedokters and medicinal plants are possible, and indeed necessary, to guide attention to other aspects that have not been considered. Moreover, this is necessary in order to think fairly and seriously about the '(a) symmetries' between the work of kruiedokters and that of molecular biologists, as put forward in my proposal. If the real reality of things is 'off limits', so to speak, unknowable as such to those not trained in the techniques of the natural sciences, there is only space for kruiedokters and their patients to offer a perspective on what is already known, or to point to ways in which sciences such as molecular biology might find more of what they already know to be at the heart of the healing life of plants – i.e. new compounds. There is then very little space for the kinds of conversations David was hoping for, above.

Methodology: events, stories, senses and ethics

In order to be able to offer a description of these ‘other ways’ – more sensitive to ‘unfolding relational contexts’, to the concepts people themselves employ in their struggles for health and wellbeing - I have needed to adopt a research methodology that would immerse me in the life of the Kamiesberg, and particularly in the work of kruiedokters and the experiences of their patients. Here I am following the lead of anthropologists such as Michael Taussig (1987), Paul Stoller and Cheryl Olkes (1987), and Jeanne Favret-Saada (1980), who argue that *going along with* shamans, sorcerers, sangomas is the only way to grasp the effects they can affect in their patients and victims. In order to do that, I have tried to allow events in the research context to lead my research. Each chapter turns around significant events that precipitated thought and insight, enabled me to ask better questions of research participants, and to gravitate toward theory most suited to the contexts as they presented themselves to me.

My main ‘recording technology’ has been my own body and a notebook. Spending the day involved in daily life, in kruiedokter consultations, in Amelia’s and Nicola’s work in UCT laboratories (see below), I would occasionally note down significant events or ideas and then in the evening write full notes on the day that had just been. I would also, from time to time, make use of a voice recorder, stills camera, and a video camera – although I am cautious with these technologies since reliance on them can tend, in my experience, to dull one’s sensorial attention to the events that envelop an anthropologist in ‘the field’.

To relay events in such a way that some of the vitality of life finds its way on to the written page, I have adopted the format of story. As a ‘retracing of a path through the terrain of lived experience’ (Ingold 2011: 161), stories are perhaps one of the least privileged forms of human communication. Without thinking about it, upon hearing a story, almost anyone with the requisite linguistic capacity can relate to the account because it unfolds along with the trajectory of life. The conjuring magic of a story well told is that the lived experience of the teller becomes that of the listener (Benjamin 1969:87) so that people may sit in ‘companionship’ with one another (Benjamin 1969:100), joining in tales of one another’s lives.

Which is why, for example, people in Paulshoek teach children about the dangers of going too close to certain water fountains through stories of their own, or others’, encounters with the huge, shape shifting, powerful *waterslang* (watersnake) that inhabits such places. At the same time, the ease with which stories merge into the ongoing flow of life often also becomes the grounds upon which people accept, learn from, reject or refute others’ tales. If a story resonates with what one has encountered

in the past or perhaps that which occurs later on down the line, then the story (or at least aspects of it) will likely be accepted and learned from. Vice versa, in the absence of such past or future resonance stories will more than likely be rejected or forgotten. In an effort not to close my own account off from the very contexts in which it emerged, I write therefore in a format that moves in generative ways between story and analysis, between events and theory. I hope this study will be read by both research participants and a wider audience and my wish is that through retracing the coupling of theoretical material and fieldwork experience as this evolved in time I can offer a story which will not (entirely at least!) be rejected and forgotten.

Throughout research, I have done my best to explain my work to people and always made sure research participants realised that they did not have to take part in my research, and that they could always request to remain anonymous. I have consciously steered away from learning, photographing, and scientifically identifying and categorizing the medicines people use. Firstly, because of the politically charged nature of such work: people know stories - from first-hand experience, rumour, and or through TV and radio – of researchers having come to an area, taken people's knowledge of plants, turned these plants into pills, and become rich without any money coming back to those who shared the knowledge in the first place. As discussed in chapter five, biopiracy has moved international organizations and the South African government to put in place very stringent legal limitations on researchers collecting medicinal plant material – another reason I avoided doing this myself. Secondly, such work has already been very ably carried out by Archer (1994), Nortje (2011), and Wheat (2013). Practically, the first steps toward my necessary 'immersion' were facilitated by Timm who, along with affording me unrestricted residence at the house that he owns in Paulshoek (fig. 6), introduced me to key individuals.



Figure 6. Timm's house, where I lived for a large proportion of my research time

Timm has a well-earned, highly-respected standing in the area - for the relationships he has maintained, the research he has carried out on plants, rainfall and livestock (all of which is of use and interest to Paulshoek farmers), and for his role in various development projects. That I was staying at Timm's house, and that it was he who introduced me to people, helped my cause no end. Perhaps most significantly, he introduced me, on our two-day May 2010 trip, to and Marianna Lot (fig. 7) and Gert 'Joelk' Dirkse.



Figure 7. Marianna Lot, collecting firewood in the *veld* near Paulshoek.

Gert Dirkse, then in his seventies, was a well-known and respected *kruiedokter* who lived and worked on his stock post a kilometre or so outside of Paulshoek village. Although Dirkse was his surname, many people knew him by his nickname Gert *Joelk*. He was also one of the *kruiedokters* that Nicola was hoping would make use of one of her GIBEX bioassay kits. Along with his many patients who visited him from far and wide (including Cape Town, Namibia, and Upington), he had been visited by various scholars interested in his work,

including Nicola, Kruger (2006), and Nortje (2011). In the cool May sunshine, Timm and I waited for several hours outside Gert's consulting room until he was finished with all his patients for the day. The wait had me on edge – perhaps he wouldn't want to work with me, perhaps he'd had enough of researchers coming to write about his work. My fears were unfounded. Finished with his patients, Gert invited us in to his small consulting room, ramshackle shelves stuffed with a cornucopia of herby-smelling medicines. After a brief outline of his techniques of divination (using a chain of beads swung over a small mirror), he said he would be happy for me to spend time with him, learning about his work.¹⁶

Marianna, then in her forties, is a resident of Paulshoek, who trained as a 'paraecologist' on an ecological science programme run by BIOTA to enable people to work with and assist visiting scientists. Marianna has worked as a key contact and research assistant for Timm, many of the students Timm

¹⁶ I do not include a photo of Gert here. Because of his passing, I never had a chance to ask him if he minded me putting a photo of him in my thesis. Also, since photos are a medium through which people are held to be able to malevolently 'work' on people at a distance, and since some aspect of a *kruiedokter* is thought to persist after his or her death, it is not without consideration that one can simply include an image of a dead *kruiedokter*.

has brought to the area, and for BIOTA scientists. Over the years Marianna, and her family in Paulshoek, have become friends of mine and it was initially through Marianna that I got to know many other people in the Leliefontein Communal Area. Because her father, Joseph Nero, was a well-known kruiedokter who, like Gert, had attracted patients from far and wide, Marianna has offered invaluable insight into kruiedokter work.

Research proper begins, August 2010.

This time driving my own *bakkie* (2x4 truck), I returned to Paulshoek on 7th August 2010 to begin my research proper. I moved into Timm's house and split my time between getting to know people in the village and, sometimes in the company of Marianna, in and around Gert's stockpost, chatting with Gert, as well as 'Sampie'¹⁷ - a young man who had come to learn from Gert (discussed further in chapter three). Whenever Nicola came to the area, collecting and preparing plant samples, I would (as best I could) help her and follow the processes of her work.

Quite sickly and infirm, Gert could no longer collect medicines himself from the *veld*. He could, though, show and explain to me his various techniques of divination; about how he used to 'tune in to nature' in order to find medicines in the *veld*; about many of the plants, animal and mineral-based medicines he used, how he prepared and administered them; and about the different kinds of winds – healthy God's wind which stayed in one place and harmful *vuilwinde* (dirty winds) associated with *toor* (witchcraft-induced) illnesses, that would move around and trouble people's bodies. He told me how he had not enjoyed working on 'white people's' farms at all and so at the age of 56 had begun with kruiedokter work and had been able to make a living for himself. He had trained six or seven others to do this work, he said, two of whom were women.

Events precipitate a change of focus

I felt I began to get a handle on Gert's work. However, in November 2010, Gert passed away. Following the October 2010 passing of Jakobus "Kooitjie" Corjeus, another Paulshoek kruiedokter, there were now no more actively working kruiedokters left in Paulshoek. Greatly saddened by the passing of someone I was just getting to know, I had to shift my focus to the work of two other kruiedokters I had – with Marianna's and Timm's help – been introduced to. These were 'John' and 'Koos,' based in two other of the Leliefontein villages, both of whom had at one time or the other learnt about plants and other aspects of kruiedokter work from Gert. As discussed at length in later chapters, both John' and Koos' work, they feel, makes them vulnerable to the malevolent intentions of *kwaadaandoeners*

¹⁷ I use a pseudonym here because 'Sampie' and I lost contact after a tense and distressing encounter, discussed in chapter two.

(evil senders) from whom they protect their patients. Because of this, they both requested to remain anonymous and so I refrain from using their names or images and the names of the villages they live in. Nevertheless, both were very open to working with me. Both of them would subsequently spend hours chatting with me about their work, and the theory behind their work. With his patients' consent, Koos was happy for me to sit in on his consultations with his patients. I sat in on dozens of such consultations.

Because Koos had a number of patients based in Paulshoek, I would sometimes provide those patients with lifts to see Koos – my newly acquired *bakkie* assuming an important role in my research process. I spent about two thirds of my eleven months' research period in the Leiliefontein Communal Area at Koos' home and village: sleeping on the floor in one of the rooms of his little house, helping to collect firewood and doing every day chores, getting to know his family, friends, and patients. The other third was mostly spent in and around Paulshoek, taking part in village life, dances, funerals, weddings, smaller 'parties', and keeping up with Koos' patients who lived there: how they were getting on, how they felt their treatment was going. While I did not follow other anthropologists' example of becoming a healer myself, Koos did eventually involve me in his sessions – making tea for his patients, fetching those medicines that might not be easy to hand, or using a cheese-grater to grate some of his medicines.

Gert and Kooitjie's passing also meant that Nicola clearly could no longer hold a workshop in order to introduce them to the GIBEX kits. Additionally, at the same time, she was finding that the GIBEX kits were not really entirely 'field-enabled' – they are more like "field deployable from a local home base," as Nicola has put it, requiring the local refrigeration of chemicals and incubation of samples. No suitable location for this could be found. She tried to develop a battery-powered incubator but could never finish the prototype (mostly because of a lack of funding for materials). Also, transporting the chemicals necessary to set up a 'local home base' would require her to get hold of special government permits. All of this meant that it made more sense for Nicola to take large plant samples back to Cape Town and work with the GIBEX kits there. In other words, my plan to follow the work of *kruiedokters* and molecular biologists as they engaged one another's ways of knowing plants *would not happen*. Just as Ferguson (1994) and Latour (1988) (see above) have suggested, events 'on the ground' turned out to be very different from the reality planned from the vantage point of the university.

I continued my research in Paulshoek, with John, Koos and his patients, with Nicola, and later Amelia when she came to collect plant samples for her own work. On my visits to Cape Town (every month or two, for a month or so), I would visit Nicola and Amelia in the UCT laboratories where they were extracting and testing the samples they had brought back with them. Because of clashes of our time-

tables, and my focus on research in Namaqualand, I was only able to follow their actual work in the laboratory on a handful of occasions. Nevertheless, this granted me a sense of how things worked, of the procedures, equipment and machinery that was essential to their work. I supplemented the gaps in my practical ethnographic presence with interviews on how their work was progressing. Without the direct molecular biologist-GIBEX kit–kruiedokter interactions I had expected, however, I needed to refocus the framing of my study. An event in ‘the field’ helped me on this front.

The AZEF poster

In September 2011, Marianna and I were sitting at Timm’s house discussing a tricky issue: how would we go about producing a poster for the up-coming Nieuwoudtville Arid Zone Environmental Forum (AZEF) that would represent the work of kruiedokters alongside Nicola’s work. How – we were asking ourselves - can we summarize our different and varied research in one, A1 poster? Personally, I was concerned that kruiedokters’ work should not be presented as a colourful, cultural add-on to the ‘real’, scientific work of molecular biology. In emphatic agreement, Marianna said this was precisely right because ‘*toor is iets wat is!*’ - ‘magic is something which *is*,’ something which has real existence in the world and is not just ‘in the head’, something which is both a reality in many Namaqualanders’ lives as well being fundamental to the work of kruiedokters. Thus, Marianna’s insistence that she wanted to take up the challenge of presenting our research with kruiedokters and the work of kruiedokters themselves in a way that would recognize and respect this reality.

And what a challenge! With this seemingly simple statement Marianna spoke to generations of philosophers and anthropologists who have wrestled with understanding phenomena – ‘magical’ phenomena – which seem impossible and often ridiculous to those who think and speak from what they consider to be a ‘modern’ standpoint (see chapter one for further discussion of this history). After our conversation, I began noticing that people would often offer similar statements to Marianna’s when they heard about the nature of my research. For those who had been the victims of magical attack, or who had been cured of such an attack by a kruiedokter, it *mattered* that ‘*toor is iets wat is*’. Eventually, following a six-way consultation process involving Marianna, Timm, David, Amelia, Nicola, and myself, we managed to design a poster (see fig. 8) which eschewed the usual talk of ‘belief’ or ‘culture’ and simply focussed upon what Paulshoek residents, scientists and kruiedokters *do*.

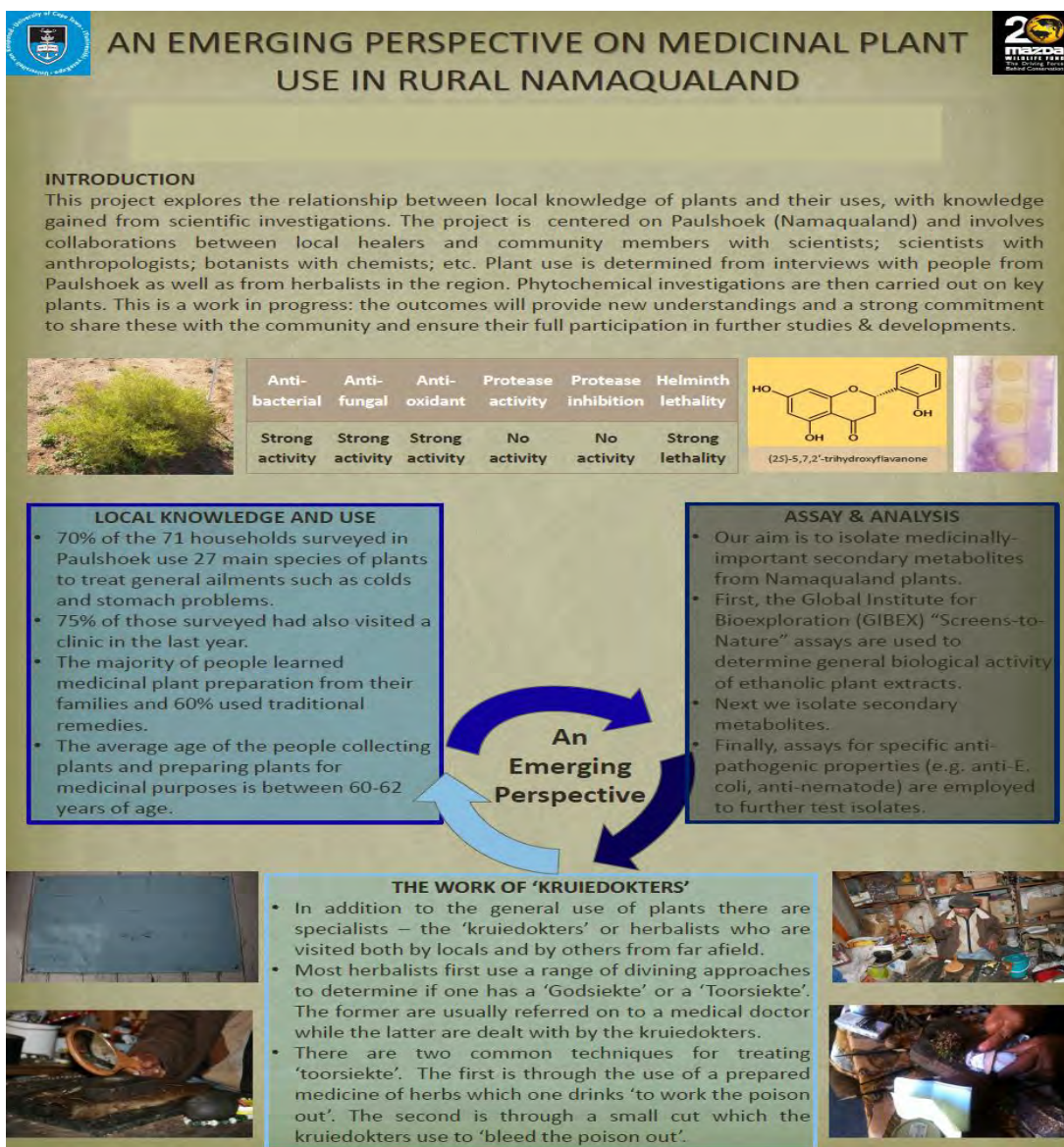


Figure 8. Our AZEF poster.

As Helen Verran, renowned historian and philosopher of science, would later observe: this poster “emphasised practices as a translating medium of knowing”. That is, kruiedokters, Paulshoek residents and molecular biologists were *doing things* with plants, having *real effects* in the world, but each in more or less different ways. Through the imagery and words it conveyed, the poster itself played a practical role in translating what could otherwise be seen as disparate, separate, perspectives, into ways of knowing united by their necessary practical aspect, rooted in the plants themselves.

However, despite its productive gesture, the poster raises other, important issues and questions. If practices (doings) are also makings, as I argued above, then it follows that those practices are not engaging in a neutral, pre-existing reality. In some way, they are also bringing some aspect of reality into being. It is in the act of doing that the same ‘things’ – plants from the *veld* around Paulshoek –

are enrolled in different relations, in different ways, to have different effects, for different purposes, and so become different things. Rather than there being one universal plant, composed of molecules, that is known from several perspectives, what plants are, and how they are known, depends on what they do and what is done to and with them, so that what makes it an 'it', is always an in-process.

If realities are 'done in practices', what kinds of realities and 'things' are being done as kruiedokters and molecular biologists work in their own ways with plants (Law 2007: 17)? How might these realities – and the similarities and differences between them - be researched, understood and described in ways that rely neither on absolute relativism, nor on one kind of reality trumping all others? Answering these questions will occupy the remainder of the thesis, through five chapters and a conclusion.

Outline of the chapters

Because *toor* features prominently in the work of kruiedokters, or at least the kruiedokters I worked with, **chapter one** outlines a history of anthropological approaches to 'magic,' 'witchcraft', and 'sorcery', historically three of the discipline's favourite subjects: from the pejorative, if encyclopaedic, nineteenth century accounts of Tylor (1881) and Frazer (1890) who dismissed magic as 'failed science'; to subtle, phenomenologically-inclined studies by Devisch (1993), Kapferer (1997) and Stoller and Olkes (1987). These latter works offer nuanced insight and productive directions for thinking about the role of 'magic' in people's lives, and its existence in the affective, animating relations of which life is made. I follow their subtle lead, with the condition that the concepts people employ are not assumed to *describe* a part of the world, but are allowed instead to *define worlds* and the things of which they are composed (Viveiros de Castro 2012; Holbraad 2011). In line with the recent so-called 'ontological turn' in anthropological theory, this is a shift from epistemological questions (i.e. how do different people perceive a singular world?) to ontological ones (i.e. is nature multiple, are there multiple natures?). This means attempting to think *with* as opposed to simply *about* the concepts research participants employ. This runs against the grain of most anthropologies of magic and witchcraft which have, typically, positioned such things firmly in the realm of belief: assuming, before the fact, what medicines, 'fetishes,' *toor* and so on *really are*. They are not, cannot be, what 'natives' claim them to be, they are *really* expressions of social tension, jealousy, Marxist fetishism. This methodological reversal is not at all to assert a belief in everything kruiedokters claim, to lock people in to 'an ontology', but a first and necessary step toward understanding them on their own terms. From there, it becomes possible to trouble the modernist assumption that the 'magic' that kruiedokters (and others) undertake is necessarily the same magic-as-irrational-counterpoint-to-rational-(Christian)modernity that early anthropologists and missionaries wrote of, and which still finds purchase in popular and academic thinking today. Following this approach, I 'discovered' that

the field of affective, animating relations, constitutive of personhood, wellbeing, and *toor*, cannot be restricted to the human realm.

In **chapter two**, I return to Nicola's work in order to approach questions of reality from the perspective of the scientific constitution of 'the natural world' that many of the works discussed in the previous chapter assumed must undergird and explain (away) conceptions of magic and healing. I trace and describe the kinds of techniques, equipment, written words and numbers, contingencies, and other phenomena that were brought into certain kinds of relation so that Nicola was able to establish extremely accurate descriptions of molecular structures responsible for bioactivity in Namaqualand plants. Following Latour's arguments in *An Inquiry into Modes of Existence* (AIME) (2013) these descriptions, and the world of 'pure physicality' they refer to, I suggest, are not actuality itself, but involve, rather, particular ways of enrolling and mapping aspects of it. They constitute one very important and pragmatic mode of existence rather than an all encompassing reality. If this is the case, then this opens the possibility for other modes existence, which might play important roles in the lives of *kruiedokters* and their patients, but which are not necessarily well understood in terms of nature or culture, mind or matter.

In **chapter three**, in beginning to explore these possible modes of existence through taking forward the 'discovery' of chapter one. I construct what I recognise as a conceptual fiction: 'ecologies of (un)wellbeing'. Despite being a fiction, this helps me to think about, and describe through story, everyday life and wellbeing in the Leliefontein Communal Area, and about the place of *bossiesmedisyne* (literally bushes medicine) and the work of *kruiedokters* in this field of power-laden relations. In elucidating these ecologies, I focus on '*krag*' – a very common, everyday term – that can be roughly translated as power/vitality/strength. *Krag*, closely related to the energy and liveliness of one's *gees* (spirit) is central to everyday discourses about health and well-being of people, plants, and animals. It is also important in the work of specialists such as *kruiedokters* who employ the terms to think about both their medicines and the bodies of their patients. 'Cultivating' *krag*, and refreshing *gees*, I argue, depend on a person's relations to myriad active phenomena, including practices, *kwaadaandoeners* (evil senders), plants, landscapes, God, and other people. People go to the peace and quiet of the *veld*, drink a bitter tonic of *bossiesmedisyne*, or hangout with friends in efforts to regain some sense of wellbeing. A skilled *kruiedokter* is able to cultivate *the krag*, and refresh the *gees*, of a patient for whom these are at the lowest ebb.

Chapter four's argument is precipitated by a personal experience with *toor*, an experience that pointed me to the propensity of a *kwaadaandoener* not only to poison and sap one's *krag*, to devitalize one's *gees*, but also to 'invite you in' to his or her zone of influence. In this way, a *kwaadaandoener*

can be said to fascinate, or possess, their intended victim. Therefore, when someone comes to see a kruiedokter, they often come not just as themselves but as someone unwillingly bound – their life ‘blocked’ – to a *kwaadaandoener* and his or her malicious thoughts and poisons. They come as part of an ecology of (un) wellbeing. In his or her efforts to protect, cleanse, and unblock their patients, kruiedokters therefore come between an attacker and his or her victim. A kruiedokter must in turn be strong, *vol krag* (full of *krag*), and I explore some of the practices, and relations, including with God and His nature and medicines, he or she might maintain and nurture in order to cultivate the *krag* necessary to take on a *kwaadaandoener*.

When someone is attacked, if they fall into a *kwaadaandoener*’s zone of influence, they might develop a painful, troublesome *wind* that moves around the body, causing pain, even strangling the sufferer in their sleep. In **chapter five** I explore this polyvalent term that points variously to the kind of wind that blows on the hillside, trapped gas, a person’s *lewende wind* (their God-given source of life), and *toorwinde* (magic/witchcraft winds). I do this through the story of a young man I call ‘Jan’ suffering from a particular recalcitrant wind, and *Koos*’ (semi-successful) attempts, including using plant-based and other techniques and medicines, to rid him of it.

Following on from this, I discuss, in the **conclusion**, the implications of my arguments for conversations around ‘tradition’ and ‘science’. I suggest that the above gives a clearer perspective of the differences between what kruiedokters do with plants and what Nicola does with plants – and that these differences cannot, and should not, be understood as the difference between culture and nature, belief and knowledge. Once these differences are clearly seen, their similarities can also be more clearly seen: one of these being that they attend to human and plant life from different and incommensurate, but not mutually exclusive, directions. I go on to reflect on my findings in light of contemporary debates and policies around Indigenous Knowledge in South Africa. While the tensions between ‘tradition’ and ‘science’ have not disappeared, the issue is not nearly as tense and polemical as when I began this project in 2009. One central continuity between now, and then, however, has been an ambitious national project of documenting IK in order to protect ‘it’, and harness ‘it’ – alongside science - for projects of local and national development, ‘sustainable’ or otherwise (National Research Foundation [NRF] 2014; Hanekom 2013).

I agree with other authors who have pointed out that caution is needed here since documentation risks abstracting and thingifying plants as objects of modernist knowledge, removed from their social-environmental contexts (e.g. Augusto 2008). I suggest that insisting on the importance of these contexts is supported by recent biomedical science and a re-consideration of the healing efficacies of the ‘placebo effect’. These developments suggest rich further potential for collaboration between the

sciences and tradition healing and medicine, as well as powerful arguments against limiting medicine to commodified and thingified amounts of bioactivity. Nevertheless, I caution against too hastily assuming that all that is needed in bringing traditional and bioactive-biomedical medicine into communication and collaboration is to join up the relational dots in *one* mode of existence. There is a need, also, I suggest, to consider other modes of existence attendant to healing events involving plants. I address the potential problem of a kind of ontological relativism that a proliferation of the possibilities of existence might open up – where a potentially infinite array of solipsistic modes of existence spring into being, each having nothing to do with, and no need of, the other (Viveiros de Castro 2014). This would render impossible the kinds of conversations David was interested in. To think beyond this problem, and to try and draw together and find common ground between the planty realities of kruiedokters, and those of molecular biologists, I reflect on my material again in light of AIME's move toward an expanded common world.

1.

Invisible constriction: a historical outline of anthropological approaches to witchcraft and magic

Charlie's accident

It was around 6 o'clock one evening in late March 2012. I was at Koos' home. We'd had a busy day and I was sitting writing some notes, quizzing him, yet again, on things we'd seen, things he'd said and done that day.

The phone rang.

Someone in a nearby village had a terrible earache and Koos wondered if I could drive him to the patient to see if he could help out. I was happy to oblige. We jumped in to my *bakkie* and drove the small distance along a bumpy dirt road to the village. At the house we were ushered quickly in and found the young man Charlie - surrounded by his mother, wife, and aunt - sitting down, clasping the side of his face and ear. He had a look of agony on his face, a pillow on his lap, and was leaning awkwardly to one side as if the pain had collapsed him in on himself. Charlie's relatives said that he had been in an accident with five other people. His car had turned over whilst driving from his home several hundred kilometres away to visit his mother-in-law in the Kamiesberg. He'd been fine after the accident, had made his way to the Kamiesberg, but had later developed a terrible pain in his ear.

Charlie's female relatives explained that they'd tried everything – 'Grandpa' powder, vinegar, sweet oil, massage – nothing had worked. As we sat down Koos handed over the *Inoro buchu* plant he'd brought along from his house, telling them to 'warm it in a pot of milk, let it cool and then trickle it into Charlie's ear'. Charlie's wife brought the medicine-infused milk in a small cup and dripped a little into Charlie's ear. Koos then asked Charlie to take his t-shirt off in order that he could inspect him. Koos gingerly felt Charlie's ear, his neck, moving slowly down to a point below his right shoulder blade.

He felt along his arm, feeling the inside of the elbow. At regular points he would ask Charlie ‘does it hurt here?’ At every point, Charlie mumbled a pained ‘ja’.

With his investigation complete, Koos said it was a *wind* that must come out and that they should fetch ‘Aunty Sarah’ - known as a ‘*smeervrou*¹⁸’ (‘smear-massage woman¹⁹’) - to come and smear-massage him. He went on to explain that:

The accident, where the car turned over, caused an injury to his neck and artery – I felt with my hands that this was blocked, and so the blood has gone cold. A *wind* has been picked up through the accident, from the *skop* [kick/knock] his head took in the accident and just like [air] in a water pipe, it’s blocking the flow of *bloed* [blood], causing it to go cold and give pain. The *Inoro buch* will help with the infection that has been brought about by the cold, stagnant blood.

That’s why the aunty must *smeer* (smear-massage) him to work this loose again, so it can flow well. And for the same reason I must *sny* (cut with a razor blade) Charlie on his shoulder blade to let out some of that blood that has gone cold and caused a blockage. So this must be worked out. It is a *natuurlike* (natural) *wind*, not one which had been sent [by someone], just picked up from the air in the knock he got to his head [my emphasis].

The *smeervrou* was sent for and turned up in good - and very loud - spirits. She’d just come from a singing and prayer session she’d been holding at her house. ‘Poor Charlie’, I thought - I could see that every time she joked and shouted, he would writhe in what looked like terrible pain.

Aunty Sarah approached Charlie, laying her hands on his neck and head, praying to Jesus, the [Holy] Spirit, and the Lord to come and touch her, to touch Charlie, calling out in a feverish voice that there was Devil’s work at play, that they [Jesus and the Lord] must come and break the Devil’s work and ‘heal this young man’. This was – the aunty was saying - a case of what people commonly refer to as

¹⁸ ‘Smear-massage women’ play an important role in the Kamiesberg, using lubricants such as Vaseline or sheep fat to work winds – *natuurlike* and *toor* ones - as well as points of embodied social and physical tension out of people’s bodies.

¹⁹ I use the term ‘smear-massage’ as opposed to just ‘massage’ since *smeer* normally comes with connotations of the use, and the importance of, the slipperiness of the lubricant used in the practice – not just the physical manipulation of muscles and organs with the lubricant as an aid to this manipulation. This helps to keep the body supple and ‘flowing’ properly. I discuss further the importance of the notion of the bodily flows in chapter five. Smear-massage women work on babies, young and old people and sometimes work alongside *kruiedokters* in treatments such as Charlie’s. Such smear-massage work is mostly done by women, though I have heard stories of *kruiedokters* who also practiced in this way. Chris Low emphasises the central role of massage in Khoisan healing, although ethnographies have until recently largely overlooked the practice (Low 2004).

'*toorsiekte*' – literally 'magic sickness', sickness caused by the malicious intent of another person sometimes referred to a *kwaardaandoener* (evil sender), or *towenaar* (sorcerer). As she was still doing this she began kneading Charlie's flesh around his neck.

Once Sarah was finished she said she would come back tomorrow, telling Charlie to sit straight up, not lean to one side because it was making the muscles on one side hard and those on the other side 'weak'. Heeding her forcefully delivered advice, he immediately sat bolt upright. Aunty Sarah then left, saying she'd be back tomorrow to smear-massage him some more. After she'd left, Charlie said he felt 'a little bit' better, though he was clearly still in considerable pain. Koos said again that he could cut him which would also help but 'not now because it's too dark to see what I'm doing.' That night I asked Koos why Aunty Sarah had spoken of Devil's work when Koos had thought it was just a *natuurlike* (natural) wind Charlie had picked up. He responded that maybe 'there is something I've missed.'

The next morning, Koos and I found Charlie still in terrible pain, perhaps even worse than the day before, though he said the pain had moved down a little from his ear towards his jaw. Koos had brought his *snywerk* kit ('cutting' kit – a tennis ball with a hole on one side and razor blades) but first wanted Aunty Sarah to come and *smeer* Charlie to loosen the wind so it would be easier to for the wind to come out with the *snywerk* he was planning to do.

Aunty Sarah turned up after ten minutes or so, with her own story to tell. She said that two nights ago, she had had a dream about people rolling over in a car – and the following morning had been summoned (for the first time, that is) - to come and *smeer* Charlie. The instant she came into the room and saw Charlie, she said, she had known it wasn't 'just an accident.' She had prayed to God last night and He had given her a vision of the person that had caused the accident and had seen the face of a man who was jealous of Charlie, a colleague at his work-place in his home town, who did not want him to succeed and so had caused the accident. She could tell from the kind of pain he was in that it wasn't a normal accident.

After much joking around, especially with Koos, she began proceedings with a prayer – speaking of the actions of this man working with the Devil, who had set something up in Charlie's road, wanting to 'make his life nothing.' But aunty Sarah asked God to block this man, to send his evil back to him, to cast him into the deepest pits of Satan's hell. And to protect and cure Charlie, who was such a good man who takes care of his wife and kid and who has such potential.

She began to *smeer* him, using some Vaseline, working the wind out of him. In fact, Charlie did give a little burp. Soon it was Koos's turn to work, to 'cut' Charlie. He placed the holed tennis ball from his *snywerk* kit on Charlie's face where the pain was near his jaw. This brought the blood to the surface,

and Koos then pinched some of his skin together and made a tiny cut with the razor blade which had just been bought from the local store.

Koos placed the tennis ball on the cut, pushing it in to cause suction. After a few minutes he pulled it off and poured the blood into the half coke bottle of water in which the ball had been soaking. Back on Charlie's face went the ball and shortly afterwards Charlie said it was already feeling better. Koos again pulled the tennis ball from Charlie's face and poured out a little globular black thing into the bottom end of an old soft drink bottle, the black mass sliding around in the extracted blood (see fig. 9).



Figure 9. Water, blood, a globular black substance (just visible in the lower most well of the plastic bottle, above), similar to the one extracted from Charlie's body.

Immediately, Charlie said the pain in his ear and tooth was now totally gone: his gums and flesh further down his face were still a bit sore, but not too bad. Koos repeated his procedure on Charlie's shoulder blade. Again, first there was clean blood, then little globular lumps of *something* that Koos poured into the water.

'Oohhh!' said Koos, 'look at that stuff!'

Soon Charlie was looking much better, speaking with ease, the pain totally gone and when he stood up he was able to raise his arms with no pain. '*Hy's lig, hy's lig*' ('It's light, it's light') he said, meaning his arm was now 'light' and easy to move.

Koos said Charlie must go and pour the red water out and pour clean water on so we can see what is there. The *poison* in the water – making it clear that this was in fact a case of *toor* - was passed around

so everyone could see it: to me, then to Charlie's teenage sister, then to his wife. The blood, the black lumps of *gif* (poison), and the water Koos washed his hands in after the cutting was to be thrown out, to the east of the house, 'there where the sun rises' in order, said Koos, that 'the sun's rays will pick it up and take it back to those in your home town who had sent it.'

Eight months later I saw Charlie and he told me he had never had any recurrence of that problem, nor with the people who were 'messaging' with him. As for many others of his patients, Koos' treatment had worked.

Anthropology and 'making sense' of magic and witchcraft

It will be useful to reflect on the *natuur-toor* (nature-magic) distinction at the centre of Charlie's treatment. For, whilst *kruiedokters* typically have a large knowledge of the uses of plants and other substances for the treatment of anything from a 'naturally' caused stomach ache, through snake bites, to oral thrush, their real speciality typically lies in the knowledge of how to treat *natuurlike* and – as is more often the case – *toor winde* (see also Kruger 2006 on the *toor-natuur* distinction among Kamiesberg *kruiedokters*). Although I know of at least one self-styled *kruiedokter* who only deals with childrens' *natuurlike* ailments, their ability to deal with the malevolent *toor* events is most often the reason why someone would go to see a *kruiedokter* ahead of going to the clinic or getting hold of *bossiemedisyne* through other routes. These 'routes' might include picking plants for oneself in the *veld*, or from a relative or friend who knows about such things (see also Wheat 2013).

An outline of *toor*

'*Toor*', sometimes also referred to as '*baljas*' or '*baldejas*', can be directly translated as 'magic,' and has many similarities with what has commonly been described as 'witchcraft' in anthropological literature. On the one hand, *toor* is an intangible and mysterious force or power, used by *towenaars* (sorcerers) in service of the devil, to attack others - to make them sick, to cause them misfortune, even to kill them. On the other hand, intertwined with its existence as an immaterial, shadowy force or power, *toor* is concretely manifested in the many tangible *things* made by both *towenaars* and *kruiedokters* to affect the lives of their victims and patients. These include the poisons *towenaars* slip into peoples' food and drink. Sometimes made from mixing poisonous plant substances together, these (are often said to) make use of dangerous human- or animal-based substances such as bones from exhumed corpses or the ground -up remains of the much-reviled *bloubaard* (blue beard) lizard.

The shadowy world of toor is revealed in peoples' dream-life in 'black' imagery: black '*potjie*'²⁰ cooking pots, black snakes, and black jerseys amongst the forms I have direct knowledge of. Toor dreams might not contain black imagery, though, and could include, for example, simply seeing the face or body of the one who is sending harmful toor in your direction.

Toor is slippery and ambiguous because while something very much like it can also be used – with the will of God - by kruiedokters to counter the evil toor of *towenaars*, the word 'toor' would rarely be used for these protective effects: 'toor' or '*baljas*' generally evokes something more or less negative and bad. Also, not everyone who makes use of bad toor is necessarily viewed as a *towenaar* – i.e. a fulltime sorcerer who has entered into a contract with the devil in order to increase their own power and wealth. Sometimes people are thought to mess around with bad toor on a more – one might say – part-time basis to achieve specific ends at specific moments. Still, the toor of such people can be potent and dangerous to those who are not properly protected. Both these people and *towenaars* might be referred to as *kwaadaandoeners* (evil senders).

In short, I am unavoidably entering in to one of the richest, long running and most challenging veins of anthropological research and theory: how to make sense of and write about phenomena vitally important in the lives of others – because they have to do with luck, health, life and death - but which 'work' in ways which seem improbable or impossible from the perspective of a predominant contemporary metaphysics? How to write fairly and properly about toor? How to do justice to the experiences of kruiedokters and their patients? Such topics have been one of the mainstays of anthropological interest and many sophisticated, rich and insightful works have been produced. Generations of scholars have developed increasingly sensitive and subtle ethnographies and theoretical tools of analysis and description.

While recognising and drawing on this rich body of ethnography and theory, I suggest that recent theoretical turns in anthropology – attempts to think *ontological* questions - can contribute productively to the study of such phenomena, through troubling what, with roots in Descartes' philosophy, has functioned as an implicit or explicit metaphysical container and framework for many of the influential studies so far produced. An *invisible constriction*, very much like the invisible 'wires' that Koos says binds the lives of those who are victims of toor. That is, a transcendental reality, a '*natural* metaphysics within the bounds of science' (Putnam 1983: 210), within which and bound by which, 'magical' events and entities find a place in the human realm of meaning and culture. These two zones of existence – of *nature* and *culture* - are typically either irrevocably divided, in earlier

²⁰ Heavy, black, iron cauldron-like pots usually with legs that are placed over fires, used for cooking in households without electricity, or when money for electricity runs out.

anthropology, or in fusion and combination, as in more recent, phenomenologically-inclined work. Until the twentieth century, this modernist metaphysics could accurately be described as materialism: ‘that all facts ... obtain *in virtue of* the spatiotemporal distribution, and properties of matter’ (Loewer 2001: 37). More recently, in light of physics’ discovery ‘that there is more in the world than matter and, in any case, that matter isn’t quite what it seemed to be,’ a more apt description of this metaphysics might be ‘physicalism’ (Loewer 2001: 37). ‘Physicalism’, writes Loewer, ‘claims that all facts obtain *in virtue of* the distribution of the fundamental entities and properties – whatever they turn out to be – of completed *fundamental physics*’ (Loewer 2001: 37). Whichever term is used, the underlying assumption is that magic’s plane of existence, that is, culture, or mind, is taken to be the infinitely malleable, because of a certain *lack* of reality, and matter, or the physical, understood as the zone of real, and *underlying* existence. Magic’s ontological status is therefore assumed from the get go to reflect a lack of reality, irrespective of the lives of those who live with it – leading to inaccuracies of analysis and description.

To expand upon this argument, what follows is an outline of some of the most important academic, theoretical developments in attempts to think and write magic, witchcraft and related forms of healing. Given the vastness of the field, I have focussed on key works – divided roughly in to five, overlapping, historical periods - and linked these to ‘Khoisan’ and South African literature where relevant. From there I return to Charlie and Koos and identify my own approach to the work of kruiedokters and *smeervrouens* and the winds they remedy.

1). 16th to early 20th Century: In European capitalism’s ascendancy, the ‘purification’ of spirit from matter and magic from science as magic becomes equated with the ‘mistakes’ of peasant and savage thought.

It is difficult to overstate the extent to which science – as idea, and as practice – has become part of every day life for billions of people around the world. Most political states rely on biomedicine, physics, biology, and many other branches of science to build, make decisions, to govern, to *know*. Globally influential industries and brands – including pharmaceutical, mobile communication and computer technology firms – derive their cachet from being seen to be at the forefront of (scientific) research and (scientific) knowledge. Popular culture reflects the equivocation often drawn between science and knowledge. In films and television shows, it is nearly always science, scientists or their technologies that are called upon to solve crimes, cure rampaging diseases, save humanity from environmental catastrophe, or defeat alien threats. Alongside this elevated position of science, I suggest, goes a popular understanding of the individualized human being who enters into relations with others from a *prior and underlying* condition of separation.

Not that science is always positively viewed. Colonial pasts – bitterly remembered today - saw so-called scientific rationalizations for the domination of Europeans over ‘native’ people. In contemporary post-colonial realities, science-modernity-development, taken as a ‘natural’ unity, is often presented as a neutral tool, propagandizing an end to poverty and disease, while exporting the precise opposite for the majority of people. And social science has for decades studied ‘biopower’ and the bureaucracies, institutions and procedures through which it disciplines and controls. However it is viewed or opposed, across much of the planet, science has come to be seen as, and in many respects is, *the* globally hegemonic system of knowledge. Thus, for many of us who live within the network of relations, technologies and myriad other phenomena referred to as ‘the twenty-first century’, it is perhaps difficult to think of scientific reason, and scientific methodology, and the individuality of the human subject, as minority, subversive, revolutionary, and emancipatory principles. Yet, during Europe’s early modern period (circa 1500 – 1800), that is precisely what these principles were. And, as Randall Styers (2004) points out, the domain of human practice signified by terms such as ‘magic’ and ‘superstition’ played, during that time, a central role both as catalyst for radical thought and as a foil against which the new philosophies – self-consciously referred to as ‘Enlightenment’ - defined themselves.

According to Styers (2004), whilst there is a great deal of scholarly confusion and disagreement about the history of the late medieval period in Europe, there is considerable agreement that the great wave of European witchcraft trials – and executions - began in earnest when sorcery and folk magic, previously viewed by the church as illusion inspired by the Devil, became seen as *witchcraft*, of working with a pact with Satan himself. This theological turn around – a change of definition of the fundamental nature of magic – was brought about at the end of the medieval period by a Catholic Church increasingly concerned by challenges to its authority. A series of Papal condemnations in the 13th century associated heretics with deviant behaviour - night meetings, sodomy, orgies, and so on (Richards 1991). Through the course of the 13th century, into the 14th, folk sorcery became viewed as a pact with the Devil and by the late 1420s ‘the stereotype of the witch engaged in a diabolical pact with the Devil, plying through the night sky to participate in orgiastic, cannibalistic, and satanic assemblies, and practicing various forms of *maleficia* had taken hold’ (Styers 2004: 32). Theologians, who drew up texts such as the *Malleus Maleficarum* (written in 1486), used to guide investigations into witchcraft, saw demons as very much part of the natural order, liable to be influenced by witches as they sought to achieve their nefarious ends (Styers 2004). Robin Briggs (1996) estimates that from around 1450 to about 1750, as many as one hundred thousand trials took place, with perhaps forty or fifty thousand people executed.

Partly in response to the trials, philosophy, philosophers, writers and thinkers oppositional to Church doctrine's position on witchcraft and the role of demonic causation in nature emerged. Pietro Pomponazzi's treatise *On Incantations* (circa 1520), for example, disputed the logical possibility of magical operations and charms, and the ability of non-corporeal entities such as demons and angels to influence corporeal reality (Perfetti 2012). Sixteenth and early seventeenth century sceptical thinkers such as Erasmus, Michel de Montaigne, Marin Mersenne and Pierre Gassendi challenged the veracity of all kinds of natural magic and the occult (Styers 2004: 40). Reginald Scot (1584) argued against the logical possibility of witchcraft, reasoning that it was blasphemy to attribute to witches powers which properly belong to God who had ordered the regularity of the natural world and 'closed the age of miracles' (Quoted in Styers 2004:42). For Scot, as for Pomponazzi, demonic agents existed only in a noncorporeal state, *removed from causation in nature*. If witchcraft was logically impossible, the church had no right to put to trial and execute the innocent (Styers 2004). Such challenges to the Church's ability and right to define the limit and form of reality were often met with suppression and oppression. Perhaps most famously, Nicolaus Copernicus' early 16th century work *On the Revolution of the Heavenly Bodies*, that claimed that the earth orbits the sun, not the other way around as held by the reigning theology of the time, was, in 1616, suspended, pending 'correction' by decree of the Catholic Church. The same decree forbade any work that claimed the mobility of the earth, or the immobility of the sun (Finocchiaro 1989). In 1633 the great mathematician and physicist Galileo Galilei was effectively condemned as a heretic by the Inquisition of the Church in Rome, and held under house arrest, for his support for Copernican astronomy (Machamer 2014). According to Shorto (2008), such suppression of thought could conceivably have dissuaded one particular Frenchman from ever letting his epoch-changing thoughts see the light of day.

Upon hearing of Galileo's conviction, René Descartes – an admirer of Galileo's physics and busy preparing a philosophical work explicitly opposed to *any* knowledge based on received wisdom - decided to burn all his papers, "or at least let no one see them" (Shorto 2008: 62). Aware of the repressive intellectual atmosphere of the time, Descartes moved from Catholic France to the ostensibly more religiously tolerant Netherlands where, in 1637, he published his *Discourse on the Method of Rightly Conducting the Reason and Seeking Truth in the Sciences* - seen by many as the foundational philosophical text of 'modernity' (Shorto 2008).

Descartes was greatly concerned with studying the human body and with improving human health, but felt the limitations of thought bound by Church power and dogma. He was doubtful in the extreme of the foundations of knowledge based on Church-authorised Aristotelean scholasticism, and on the received theories of ancient Greek humoral, folk, and witchcraft-related medicine that at the time

held sway in Europe (Shorto 2008). These, he believed, had long ago reached the limits of their possibilities for advancing understanding, as the knowledge basis for society. He set out to revolutionise thought through developing a philosophy based upon extreme scepticism for the reality of anything for which he did not have absolute, directly *observable* proof. He refused, he wrote, to be tricked by “the promises of an alchemist, the predictions of an astrologer, the impostures of a magician” (Descartes [1637] 2005: 6). Arguing that the senses could be deceived, his philosophy would proceed from the one thing about which he thought he could be certain – his own thinking self, mind or spirit, encased within, but fundamentally different from, his body. Beyond that self, and a God whose existence he somewhat paradoxically ‘proved’ by logic alone, a pure, mathematically knowable, universal matter with, ultimately, the *primary* qualities only of spatial extension, duration and existence, could, he believed, explain everything we could observe –that is, the *secondary* qualities of the experienced world (Hatfield 2014). Such secondary qualities included the four elements – earth, air, fire and water – that contemporary Aristotelian philosophy at that time argued was the *base* constituents of the world (Shorto 2008: 7). In distinguishing between primary and secondary qualities in this way, ‘bifurcating nature’ as Alfred North Whitehead put it, Descartes was following Galileo, and laying the foundations of a central tenet in modern Western philosophy (Whitehead 1920: 32; Latour 2005). Descartes’ universe of pure matter encompassed the human body which, when sick, Descartes believed, could be fixed as one fixes a machine – with no appeal necessary to God or any spiritual force in order for medicine to be efficacious, contrary to what medical tradition at that time held (Shorto 2008).

A committed Catholic, and wary of how his philosophy would be received by the Church that took as Truth the Bible and the philosophy of Aristotle, Descartes made it clear that he was not aiming to undermine religion. Magic, superstition, and unreason were his targets. In fact, he believed that in making an absolute distinction between spirit and matter, he would protect religion, whose domain of interest and study would be spirit, from the incursions of science. At the same time, he would protect science, whose domain of interest and study would be matter, from the incursions of religion. While some in the Catholic and Protestant Churches were enamoured by his work, others were suspicious and critical, worrying that a philosophy based on doubt and reason, not faith, would lead to atheism, and undermine the political-economic-religious domination of the Church; that a body and a medicine with no need for faith and prayer elevated the material above the spiritual; and that this elevation of the physical would reduce religion to the status of superstition. Descartes' philosophy was banned in the Dutch cities of Ultecht and in Leiden, and he was widely accused of atheism, the threat of being branded a heretic hanging perpetually above him (Shorto 2008). “A troop of

theologians,” he wrote towards the end of his life, “followers of Scholastic philosophy, seem to have formed a league in an attempt to crush me by their slanders” (Adam and Tannery 1974: 15-16).

Nevertheless, others became excited by the possibilities that a new commitment to reason offered for understanding and controlling the natural world. In part cultivated by his own self-confident self promotion, people believed that the new world offered by Descartes and others would be one where sickness, even death, could be conquered. Descartes earned a considerable following in his own lifetime and his works sparked vehement arguments across Europe about the relationship between matter and spirit (Shorto 2008). His work joined and fomented the thought of other scholars critiquing established traditions of thought. Across Europe, early Enlightenment thinkers of the 17th century such as Francis Bacon (1561-1626), Thomas Hobbes (1588-1679), Baruch Spinoza (1632-1677) and John Locke (1632-1704) spoke and wrote against Aristotelian scholastic and religious doctrine as a basis for knowledge of the (newly defined) *natural* world. They developed and took forward the idea of Nature as a perfect system based on immutable laws which could be known precisely and exactly with certainty only through reason and or experiment (Styers 2004).

Cartesians argued passionately for the ‘new philosophy’ and after Descartes’ death in 1650, the fervour only increased. Across the continent, his life, his philosophy and even his very bones, as Shorto (2008) tells so well, became the subject of popular, religious and scholarly fascination and discourse. There was here no clear-cut battle between religion and science, however. Some Catholic orders, and other religious figures, were among those who viewed Cartesianism as the way toward a better world where, again, nature, the *physical* world, could be effectively studied, known, and therefore manipulated, for the betterment of humanity (Shorto 2008).

Other religious authority figures, however, were deeply troubled: Cartesian materialism undermined the reality of the eucharist, the central ritual of Catholicism, and many proponents of reason, including Baruch Spinoza, argued that egalitarian democracy, not absolute monarchy, was the most reasonable form of government (Shorto 2008:58). Several of Descartes’ books were banned by the Catholic Church and in 1671 Louis XIV opposed Cartesianism because of the challenge to church doctrines it might inspire. Soon after, the city of Paris imposed the death penalty for ‘anyone promulgating such doctrines’ (Shorto 2008: 72).

In many ways, and despite such repression, the developments in European philosophy during the period that people at the time consciously referred to as ‘the Enlightenment’, would prove the fears of the Church to be correct. Descartes’ philosophy, and those developing upon his vision of a universe of pure matter, separate from, or even with no need of spirit, *did* lead to increasing secularization and

atheism. Notions of democracy, and the autonomy and rights of the individual became increasingly seen as bases for a just society: expressed no more clearly than in the events of the French Revolution (Shorto 2008).

Direct divine and demonic causation in nature were virtually expunged from the dominant European philosophies during the course of eighteenth and nineteenth centuries. At the same time, that which was 'left over', the world of physical matter, became the concern of the newly emerging sciences. With the development of Newtonian physics in the late seventeenth and early eighteenth centuries, scientists became more and more self-confident of their ability to know and control nature itself. New industries, discoveries, technologies, medicines were made possible because of an approach to the world that Descartes played a central role in formulating: scepticism, observation, and the ability to disconnect subject from object. This was the great 'purification' that Latour asserts is central to what he calls the 'Modern Constitution': a universalized nature, separate from culture, to which science has direct and unchallengeable access (Latour 1993). A world of pure stuff more amenable, too, as Karl Marx, Max Weber and Keith Thomas have pointed out, to the needs of the new economic system which required the possibility of homogenous parcels of land as much as it required human labour of a similar form (Marx [1887] 1967, Weber 1930, Thomas 1971). A similar point can be made regarding the invention of the autonomous *individual* (e.g. as described by John Locke and Thomas Hobbes) and the labour needs of industrialising nations.

As this new order of things took shape, and despite various Enlightenment-era thinkers' arguments for social equality and democracy, ideological-political contrasts were established between an educated and sceptical elite and a credulous, uneducated mass. This was partly because of Enlightenment notions of 'progress,' of each generation moving away from the ignorant 'dark' toward the light of reason. Pre-eminent Enlightenment thinkers such as David Hume and Voltaire, entirely dismissive of 'superstition', associated magic not just with previous eras in European history, and with the uneducated peasantry, but also with the exotic 'savages' encountered through the exploits of imperial European nations in other regions of the world (Styers 2004: 55). As anti-colonial and anti-apartheid writers would later argue, this prejudice which equated the rural with uncivilized, traditional, stagnant and superstitious culture would become an essential ideological tool used in the maintenance of colonial and apartheid orders (Fanon 1963; Thornton 1988).

As European states in the 18th and 19th centuries expanded their empires with the aid of new technologies developed through insights gained by scientific method, such exploits were justified by the notion that they would bring the light – of Jesus, of Reason, of Civilization – to colonial subjects. Despite their sophisticated skills of ethnographic reading and synthesis, two of early anthropology's

most influential theorists of magic – Edward Tylor and Sir James Frazer – were no exception here. In *Anthropology: an introduction to the study of man and civilization* (1881), Tylor draws directly on Charles Darwin's work in describing his evolutionary theory of humankind and the various ranks of human races: from the savage, through the barbarous, to the civilized. It is such 'rude races,' he argued, who would take dream experiences of travels and personal encounters for real ones, leading to the mistaken perspective of 'animism, the theory of souls', by which souls or spirits were *projected* into humans and animals, even into what were *really* 'lifeless things,' such as canoes, weapons, and earthen pots (Tylor 1881:342-372, 346). It is the manipulation by humans, and the machinations, and invasions of such spirits and demons that primitive medicine assumed to be responsible for all kinds of serious ailment.

Tylor is unequivocal that magic is but failed science, what happens when 'lower' races, who know much about their natural environment through intimate experience with it, including a great deal about the use of medicinal plants and so forth, come up against a dilemma, a task or a wish they don't know how to practically address. For him, magic results from the primitive mind "mistaking an ideal for a real connection," with 'practically' no value whatsoever. For Tylor, it is only the modern educated world that can see the folly of magical analogies such that as proper associations are formulated, true science emerges (Tylor 1881). In a similar vein, Frazer thought magic a failed pseudo-science where errors in associative thought attributed causal relations through similarities (homeopathic magic) or of contact between phenomena (contagious magic): an unfortunate propensity of thought found not just in the crude intelligence of the savage but 'of ignorant and dull-witted people everywhere' ([1890] 1922: 11-13).

Khoi and Bushman magic and the European gaze 1652-1900

Southern Africa, as a region of European exploration, settlement, and domination from the mid-17th century on, was a key zone where reports and studies of mysterious lands and their inhabitants played their own role in the establishment of the ascendancy of the educated European version of reality both in Europe and in emerging colonial contexts. Since it was the Cape which was first to be settled in the 1650s, it just so happens to be that the first reports of those people inhabiting the Southern end of the continent when Europeans arrived were often of those (whom they) referred to as 'Hottentot', 'Namana' and 'Namaqua' people (Schapera 1930, 1970).

Given the European intellectual trajectory sketched out above, it is unsurprising that the gaze with which Khoi 'healing' – taken in its broadest sense - was seen was more often than not a biased one. From the 17th and early 18th centuries on, proto-ethnographic studies by the likes of Olfert Dapper

(1668), William Ten Rhyne (1686), Johannes Gulielmus de Grevenbroek (1695) (see Schapera 1970), Simon Van der Stel (1685-6, pub. 1932), and Peter Kolb (1731) certainly provide invaluable details and document fascinating continuities of practice – and even aspects of theory - in Khoisan healing and general life that are part of the daily work of people like Koos to this day.

Yet, as useful as these works are for offering a sense of things during earlier periods, and insights into the temporal and geographical depth of certain concepts and practices, many of the subtleties of Khoi healing worlds were persistently overlooked and denigrated. In his 2004 PhD thesis *Khoisan healing: understandings, ideas and practices*, Chis Low identifies and offers strong evidence for an epistemological/ontological blindness prevalent in this early period of ethnography. In short, in the vast majority of cases that which looked like ‘medical practice,’ to the eyes of ethnographers – such as herbal remedies and blood-letting – was understood as such, according to causal relations that made sense to the observers. Before the formal development of anthropology in the late 19th century, indigenous explanations were rarely sought (Low 2004: 29). That which made little sense to the ethnographers was summarily dismissed as ‘superstition’. This did not mean that travellers, missionaries, and European farmers did not rely to a large degree on Khoi and Bushman knowledge of medicines and cures: it’s just that in scholarly accounts, the ‘reality behind’ the effects of these was assumed to be that which they brought with from the educated centres of Europe (Low 2004, Augusto 2007).

As Low (2004) argues, this early period of proto-ethnography seems, again in line with contemporary European tendencies, to have been carried out in a spirit of the collection of curiosities, just to see what was out there. Perhaps linked to the increasing confidence in science and scientific methods of classification, in the later eighteenth and early nineteenth centuries, adventurers such as Carl Thunberg (travelling 1772-1775, published 1986), Robert Gordon (travelling 1777-1786, published 1988), Anders Sparrman (travelling 1772-1776, published 1786), and William Burchell (travelling 1822-24, published 1953) began a somewhat more systematic description of Khoi and Bushman peoples and their practices. This included collection of large numbers of botanically described and beautifully illustrated plant samples – many of these detailing medicinal properties learnt from Khoi and Bushman informants.

Clearly, this approach of gaining knowledge from ‘native informants’ to access plants’ medicinal properties has a long and very much on-going history as witnessed by the many papers, theses and books on South African ethnopharmacology and ethnobotany which have followed these early trailblazers. With its high degree of biodiversity, Namaqualand and surrounds has been no exception

to this²¹. As mentioned in the introduction, several works of this kind have focused on medicinal plant use in the Kamiesberg in particular (e.g. Archer 1994; Nortje 2011; Wheat 2013).

Low (2004) identifies – perhaps because they were aiming at good, detailed empirical observation – a willingness on the part of 18th century naturalists Sparrman (1786) and particularly Gordon (travelling 1777-86, published 1988), to speak with their Khoi and Bushman interlocutors about their own understandings of their own healing practices. They wrote at length, and in some detail, about what they encountered. Despite these careful observations and increasing interest in Khoi and Bushman understandings, it was again on the topic of what they saw as ‘magic’ and ‘witchcraft’ that their sympathies became unstuck: where the ontological gulf between researcher and researched came in to full force. For example, having forced a ‘Hottentot sorcerer’ to perform a cure in front of him in December 1778, Gordon wrote that he could barely keep himself from bursting into laughter at what Gordon (as he thought) *knew* to be a malicious fraud (Cullinan and Gordon 1992: 69).

Low (2004) argues that, as science became more established in the 19th century, European observers thought less in terms of real witchcraft and more of primitive people holding primitive beliefs. Colonial attitudes were frequently disparaging of Khoi and Bushman ignorance, or of exploitative charlatan healers, and apparent Khoi and Bushman mystical beliefs were derided in much the same way that educated Europeans derided the beliefs and practices of European peasants (Low 2004: 52). It was not until the emergence of professionally trained anthropologists around the turn of the 20th century that more nuanced accounts would emerge (Low 2004).

2.) Early to mid 20th century. Theories of magic progress from ‘mistakes’ of primitive thought to their individual or social *functions*: a notion of use to colonial governments struggling to manage large and increasingly unwieldy empires.

For Sigmund Freud, Tylor and Frazer had hit upon an interesting insight in unearthing the propensity for magical thought among primitive peoples. However, Freud thought it was not enough simply to assert lack of intellectual development or mistakes of reasoning, it was necessary to look at the psychological reasons *why* these mistakes were made (Freud 1918). For Freud, the animistic or primitive stage of social development can be directly compared to the narcissistic stage of individual sexual development. As the child, unable to bring about its libidinal wishes in the real world, releases psychic tension by fulfilling its wishes in fantasy – not realising the difference between fantasy and the real world – so the primitive releases tension by ‘playing,’ in magical practice, what he or she

²¹ See introduction for examples of relevant references.

wishes to happen in the world. Playing at something similar to the wish 'compels the fulfilment of the wish by virtue of its similarity to the object desired (1918: 110).' Like the child, and in fact, also like the 'civilized' neurotic who worries his or her death wishes will lead to the actual death of others, the primitive, stuck in the narcissistic stage, assumes an 'omnipotence of thought:' whatever is brought into connection in thought, is brought together in reality where, through the imagined phenomenon of telepathy, physical distance between phenomena is of no consequence.

In the early decades of the twentieth century, with influences from the sociological work of Emile Durkheim, magic in the work of European theorists began to take on the status of a social fact with a *functional* role in the lives of individuals and the societies they inhabit. Lévy-Bruhl (1912, 1922) posited two very different, evolutionarily distinguished, *kinds* of thought: the primitive and the civilized. Whereas in the first it is 'mystical participation' that heavily predominates, in the latter, it is a critical, scientific attitude. By 'mystical' he meant "the belief in forces, in influences, and in actions imperceptible to the senses, though none the less real" (1912: 30). Although Lévy-Bruhl recognises that these are "real", he also argues, as Evans-Pritchard points out, that the mystical attitude comes between the primitive and things of the world, and transforms these things' "purely *objective* properties" (Evans-Pritchard 1965: 83-84). This is not a question of belief *per se*, since from the primitives' perspective, object and mystical relation fuse as one entity. Since these forces were as pliable as the socially conditioned minds which dreamed them up, it was possible for almost any phenomenon to 'participate' in any other and so be mutually affecting (Evans-Pritchard, 1965). As in the mind, contradiction in causal relation was no obstacle here. This gave rise to the ideal, homeopathic and contagious connections mentioned above. Lévy-Bruhl's insistence of the importance of different kinds of consciousness, of shifting perception, in understanding magic has remained a key insight in many subsequent theorizations of the work of 'shamans', and other kinds of healers and magicians.

From 1912, and throughout his career, psychologist Carl Jung drew on Lévy-Bruhl's concept of mystical participation, arguing that symbolic association was the language *par excellence* of the unconscious. Since in 'primitive man' the division between unconscious and conscious minds was less well established, it was to be expected that magical thought and the assumption of the possibility of sorcery – of objects, animals and people, directly participating in one another was to be found in those societies. Primarily, for Jung, the role of magic was the cultivation and channelling of "power" or "vital energy." As spoken of, by many different names – e.g. *wakonda*, *mana*, *wakan* - by 'primitive' people around the world, this phenomenon is seen and experienced as the animating, productive, efficacious, life-giving or destroying force permeating the world, including weather, people, animals

and objects of magical power (Jung 1969: 61-66). For Jung, mystical participation in relations of this force was the ('primitive') precursor, before the development of the modern's capacity for conceptual thought, of modern notions of psychic energy, even energy itself. That is, energy in the Einsteinian sense of universalized energy that is resolvable into universalized matter. Objects, invested with this force, provide an evocative tool for manipulating one's experience of a given situation – say, defending oneself from magical attack, or aiming anger at an enemy – even though the object manipulation itself has no practical effect on the external world (Jung 1969). As we will see below, aspects of psychoanalytical theory have remained an enduring presence in anthropological theories of magic and witchcraft in African and Southern African contexts: typically, treating sorcerous, magical events and practices as symbolic manipulations of libidinal energies (e.g. Levi-Strauss 1949a, 1949b; Lambek 2002; Devisch 1993, 2002), and or interpreting demons, ancestors and other beings as projections of the unconscious (e.g. Buhrmann 1982), or elements of a collective unconscious (e.g. Johnson 1994; Hund 2004).

In 1939 (English translation 1962), Jean-Paul Sartre proposed a not entirely dissimilar theory to Jung. For Sartre, every moment of human life offers a range of paths for possible action in the world. When we find all possible paths blocked, when we cannot act practically to change our situation, we 'fall' into the sorcery of emotions that can 'magically' change our experience of the imposing object or context. So, for example, in terror, we might close our eyes, turn ourselves away from the terror-inspiring thing and in that way cause it to magically disappear from our consciousness. '... we try to change the world;' writes Sartre, 'that is, to live it as though the relations between things and their potentialities were not governed by deterministic processes, but by magic' (Sartre 1962: 63).

A key difference in Levy-Bruhl's work as opposed to earlier theories, was that it was not the unsound reasoning of the *individual* intellect which lay behind these connections, as in Tylor's and Frazer's accounts, but the 'collective representations,' the socially established systems of symbolic meaning in which each person was immersed. A key aspect of this theoretical move, and indeed central to the anthropological project to this time, is the recognition that personhood is not simply *in* the human being as such, but produced through the relations one must necessarily exist in. Thus, magic and witchcraft, no matter what analytical sense one makes of them, extend beyond the beliefs of an individual mind.

Since collective representations were cultural translations of archetypes shared by *all* human beings, Jung, for his part, thought these collective representations to be 'practically the same thing' as his own concept of the 'collective unconscious.' These collective representations, argued Levy-Bruhl, moulded not just how primitives saw the world, but *how they looked*, and *what they looked for*.

Primed to expect mystical participations, this is what they seek out and find. Though they may seem absurd to 'us' civilized lot, he thought, whose collective representations *happen to accord with objective reality*, magical associations make perfect sense from the perspective of the primitive (E.E.Evans-Pritchard 1965). This is especially so in moments of "extreme emotional intensity," such as during ritual, "in which representation is as yet undifferentiated from the movements and actions which make the communion towards which it tends a reality to the group." (Lévy-Bruhl 1985 [1910]: 362, quoted in Turner 2011: 11). For his part, Franz Boas (e.g. 1911) echoed Lévy-Bruhl's argument, suggesting that 'primitive men' have a stronger propensity for 'symbolic thought,' of connecting disparate aspects of social life. However, in his contribution towards the cultural relativist approach, he argued this propensity would be derived from the particular historical-cultural context rather than teleological, evolutionary and universal process or a rigid distinction between civilized and primitive thought (Morris 1991).

After the First World War, British Social Anthropology, with the functionalism of Bronislaw Malinowski and the structural-functionalism of Alfred Radcliffe-Brown, distanced itself from anthropological evolutionism (Asad 1973). Though Malinowski was critical of the worst colonial atrocities, and also the colonial inclination to dismiss and denigrate everything it did not understand, he was quite clear that colonial authorities should, as a matter of urgency, begin systematically collecting data on their subjects in the functionalist fashion in order that colonies could be ruled 'scientifically' (Malinowski 1922:208). Radcliffe-Brown expressed almost the exact same argument when proposing his structural-functionalist methods as a means to address the race 'problem' in South Africa, 'without the loss to the white race of those things in its civilization that are of the greatest value' (Radcliffe-Brown, quoted in Knight 1995: 67). Evolutionary schemas were thus of less interest to Malinowski and Radcliffe-Brown and the colonial authorities to which they addressed their argument, than the ability to understand the present conditions of whole communities, the better to contain and coerce them (Malinowski 1922: 214).

Magic, Malinowski argued, had to be understood as tightly woven into the 'fabric' of meaning and behaviour that constitutes 'tradition,' often to the benefit of those in power. It makes sense within the whole 'collective organism' as an adaption to the biological imperatives of the environment. Specifically, he argued, magic offers practical techniques in situations where human knowledge is inadequate in order "to ritualize man's optimism, to enhance his faith in the victory of hope over fear" (Malinowski 1948: 70). Taking leads both from Frazer and Freud, he viewed magic as a pseudo-science, but one which allowed a venting and alleviating of intense frustrations inflicted upon human 'universal psycho-physiological mechanism[s]' by the realities of life (Malinowski 1948: 60, 67):

unable to really attain his desires, the 'savage,' acts out, through symbolic thoughts and gestures, the state of affairs he wishes to attain and through this achieves a cathartic sense that this has actually come to pass.

But almost certainly *the* most influential and sophisticated theoretical contribution made during this period was Edward Evans-Pritchard's in *Witchcraft, Oracles and Magic Among the Azande* (1937, see also 1929, 1931). Unlike Levy-Bruhl, he argued that mystical causation did not *replace* peoples' ability to recognise empirical causation but very often added another layer of socially relevant causation to any event that they sought to understand. For any misfortune, which 'we' might take as *really* natural in origin, a mystical cause, a witch, provides an explanation as to *why* this particular person was afflicted by this particular thing at this particular time. From this, it is possible to follow a number of socially sanctioned routes for rooting out the witch behind the misfortune and gaining some kind of recompense. In sum, witchcraft, oracles and magic *functioned* as 'a system of values which regulate human conduct' (1937: 64). Despite his ostensibly relativist stance, he nonetheless believed that magic was a *social* reality only and that the 'physiological condition which is said to be the seat of witchcraft ...[is] ... nothing more than food passing through the small intestines ... Witches, as Azande conceive of them, cannot exist' (Evans-Pritchard 1937: 64).

In a similar vein, what were taken to be (ultimately false) *beliefs* about magic, witchcraft, and sorcery serving a social role of some kind – often having to do with articulating or alleviating social stresses, such as jealousy – in the lives of a 'tribe' or 'people,' became an extremely popular one in anthropology and remained so until the 1950s and '60s and beyond (e.g. Aquina 1968, Debrunner 1959, Epstein 1959, Gelfand 1967, Krige 1947, Marwick 1948, Hunter-Wilson 1951). In South Africa, apartheid-era Afrikaans-language *volkekunde* studies combined earlier evolutionist theories with notions of essentialized, bounded *ethnoses* to provide ideological weight to the separatist policies of the South African National Party (Sharp 1980).

In terms of Khoisan ethnography during this period, various accounts (e.g. Laidler 1928) of aspects of Namaqualand witchcraft and magic were produced in the early decades of the twentieth century. With the newly emerging science of Anthropology, these included new levels of descriptive detail. However, as Low (2004) argues, "Nowhere," among this work, " ... is there any real sense of distance from the ongoing European habit of analysis using the categories of the natural, scientific and the supernatural" (Low 2004: 106). A dip in depression and war-era funding from 1930 to 1950; the anthropological concern with 'egalitarian,' 'bushmen' 'shamans' from the 1960s on (e.g. in the work of Richard Lee [1968] and Richard Katz [1982; and Katz, Biesele & St. Denis 1997]); and the assumption made by many that witchcraft and magic were not 'genuine' 'Khoisan' phenomena, but

somehow 'imports' from Bantu-speaking Africans, meant that from 1930 until the 2000s, very little (with some exceptions, e.g. Carstens 1966, Kruger 2006) was written on this topic. Low's work (2004, 2007, 2008, 2011) has remedied this lack and I see his more generalized account of Khoisan healing – with a recognition of the importance of magic and withcraft - with a focus on Namibia and Botswana as complementary to my more specific findings in Namaqualand. Many of the concepts his informants speak of in relation to healing resonate with my own experiences and I draw on his insights in later chapters.

3. 1950 to 1970s: the rise of symbols in anthropological analysis. 'Magic,' as symbols which represent cultural and natural phenomena, operates at the level of the body to bring about social/-bodily dis/order and therefore illness/healing.

Sherry Ortner (1984) argues that symbolic anthropology rose to prominence during the 1960s and '70s, most notably in the work of Victor Turner (e.g. 1968) and Clifford Geertz (1973). This was an attempt to understand people's meaning-filled worlds, including their 'magics', that another prominent theoretical tradition of the time, that of the cultural ecologists (e.g. Harris 1975; Rappaport 1968), had reduced to a functional role in society's adaptation to its environment. Though Ortner's suggestion is essentially accurate, it was of course actually significantly earlier as we saw above – in the work, for example, of Freud, Jung and Malinowski - that the symbolic realm was firmly theorized in its connection with sorcery and healing. In this period ('50s-'70s) in anthropological theory, however, it was probably in the work of Claude Lévi-Strauss that symbols, sorcery and healing were first, and most successfully, connected. In 1949 he published "Le sorcier et sa magie (The sorcerer and his magic)," and "L'efficacité symbolique (The effectiveness of symbols)" two influential papers which, while continuing to emphasise the constricting power of the social over the individual in sorcery/healing events, offered a nuanced account of how *specific* symbols had *specific* effects on the body of the afflicted.

Since 'the universe is never charged with sufficient meaning,' Lévi-Strauss argued, 'the mind always has more meaning available than there are objects to which to relate them' (1963: 184): human intellect is therefore defined, in contradistinction to all others, by the symbolic connections it draws between objectively unrelated phenomena. Nevertheless, there is no reason, Lévi-Strauss argues, following the work of Cannon (1942), to doubt the efficacy of sorcery – dealing as it does in the realm of belief and symbolism - to cause real, physical illness, even death: the victim, tabooed by his own community as a source of danger, finds his 'physical integrity cannot withstand the dissolution of the social personality (1963:168).' Similarly, the shaman's cure often proves to be no less efficacious. In his or her treatments, the role of the shaman is, Lévi-Strauss thinks, the dialectical opposite of the

cosmopolitan Freudian psychoanalyst. The latter, through a process of discussion with the patient, brings into being a powerfully affecting personal myth that establishes an intelligible, and therefore approachable, account of the origins of neurosis. The shaman, through drawing on culturally recognised mythology, word play, intense theatre, and physical bodily manipulation, breaks down, in the victim's psyche, the barrier between the physical ailment and the symbols through which the shaman refers to different parts of the body. Thus, through offering a symbolic account which re-orders into harmonious relations the parts of the body that illness renders chaotic, the shaman initiates a physiological response which brings the actual physical body into harmonious order. Whilst the psychoanalyst 'draws out' an ordering personal myth *in the patient's words* in order to heal, the shaman – as the active speaker – coerces the patient's mind-body into a socially legitimate myth for a similar purpose.

Despite his insistence that science and magic are not hierarchically related, he argues that such dialectically opposed similarities as those between the psychoanalyst and the shaman stem from the universal, binary logic of *all* human minds or brains (Lévi-Strauss 1963; 1966). He also assumes a universally valid division between pure physicality and the symbolic that the shaman has to go about breaching in the intense ritual theatre of his performance/treatment.

From the late 1950s (e.g. Turner 1957), through the 1960s and 1970s (Turner 1967, 1968, 1974, 1975), Victor Turner's take on symbols, witchcraft and healing constitutes a subtle and sophisticated reworking of the 'majesty of the Freudian symbology of the unconscious' (Turner 1975: 30). Whilst for Freud (and Jung), the origins of human beings' propensity to symbolically associate otherwise disconnected phenomena lies in the strange ways of the unconscious mind, for Turner this derives from the actual experience of social others. That is, the 'spontaneous, immediate, concrete relationships between individuals,' the '*communitas*' (1975:21), of which a great deal of daily and ritual African village life (he argues) consists. Such experience, he thinks, is the inspiration for a vision of materiality which is 'vital' and bursting with meaningful associations and correspondences. With influences from Max Gluckman, he saw society as existing in perpetual tension, with this actual flow of life – '*anti-structure*' - at odds with the abstract structure of rules and responsibilities cut out from that flow (Turner 1975).

All things being equal, Ndembu villagers believe, structure and anti-structure are held in balance and people and nature exist as a healthy whole. At times of crisis, such as illness or misfortune, a diviner might be called in to point a finger at the cause – often this being found in the person of the witch. Typically the witch, acting in accordance the very definition of selfish, private interests, has violently insulted *communitas*, that which plays a vital role as the 'social glue' which makes permissible and

possible the divisive social structure which is nevertheless necessary for society to function as a whole. One of the most effective means Ndembu possess for ridding themselves of such poisonous presences is through what Turner terms rituals of 'revelation': rituals which symbolically bring *communitas* into immediate energetic experiential sensation. In a similar vein as Lévi-Strauss, Turner argues that symbols, in the form of 'objects, gestures, plants to be administered as emetics and ointments, or in cupping, enemas and baths' provide powerfully evocative links between the social order, *communitas*, and the physical realm at the level of the body (Devisch 1993: 250): rituals of revelation involve a manipulation of these symbols so that the 'energies, affects, and motives' of all are brought into alignment "with the health of the corporate body, with securing balance and harmony between its parts" (Turner 1968: 270).

4.) 1970s to present: radicalization of thought - from Marx, through world-making words, to the knowing body and the senses, challenges to 'objectivist' epistemology.

Across the world, the 1960s witnessed many radical political movements – from the 'counter-culture' of the hippies, to anti-war protests, feminist movements, anti and postcolonial movements, to the general strike and student occupation protests of 1968. By the 1970s, by way of the critical and linguistic postmodern 'turns' and 'the crisis of representation' in Western philosophy, this radicalism found its way into anthropology, as a questioning and a critique of anthropology's historical ties to imperialism (e.g. Asad 1973) and of the fundamental bases of its theories (Ortner 1984, Moore and Sanders 2006). To retain any kind of legitimacy, anthropology had to respond to critical voices coming from students and writers, many from former colonies, who attacked European imperialism and the epistemic colonialism – including the knowing anthropological gaze - central to its efforts (e.g. Fanon 1963, 1965; Mafeje 1971, 1976). Along with this was raised the central question of the general lack of any space for active human agency in structure-bound anthropological theory (Giddens 1979). Human beings as passive receivers of rules and tradition did not accord very well with the revolutionary spirit of the time.

Given 'our' historical complicity in the Western world's cultural, economic, political and epistemological domination of vast swathes of the world, what right did 'we' have to write for, on behalf of, in the name of, those who had been and still were subject to this violence? How could we be sure that our categories (like magic, witchcraft and so on) were really adequate translations of ethnographically known phenomena? Along with these questions, the underlying assumptions of Western philosophical traditions were questioned (Ortner, 1984). Stemming from a wide-ranging return to Marxist theory, perhaps the most important concept of the era was that of fetishization (or reification, thingification and essentialization, which are basically synonyms): of taking what was a

social relation between humans to be an objective relation between things. The notion of an objective ethnographic reality 'out-there' which we could faithfully represent had to be utterly rethought, as did the structures (both social and mental) of which earlier anthropologists had been so fond. If our access to and knowledge of the world was fundamentally shaped by discourse, by social or cultural constructions of reality, as post-modern theorists contended – how could we claim to have an authoritative, objective knowledge of anything? From that time, to the present, anthropology has questioned its right, and ability, to know, and to produce *objective* knowledge of the 'other' as it had so confidently done in previous decades. For ethical and theoretical reasons this has been an essential and necessary move, in the process expanding anthropologists' conceptualizations of what knowledge is, and what it is to know.

Theorists of the 'poststructuralist' and or 'linguistic' turns in Western philosophy turned to words, texts, discourse and narrative (e.g. Michel Foucault [1969, 1971], Jean Baudrillard [1983], Jean-Francois Lyotard [1984] and Jacques Derrida [1973, 1976, 1978]) and, in the work of Pierre Bourdieu (1977), the body, as the basis through which they would rethink accepted tenets of mainstream modernist philosophy. The postmodern era breaks from the modern, in the work of the majority of these scholars, at the point of a radical shift in the dominant mode of representation. For the modern, the sign points to a real thing 'out there', to truth and reality, the subject aiming to – and believing she can – know the object in increasingly accurate terms. British social anthropology's attempts to know the objective, underlying structures of society, Evans-Pritchard's attempts to describe the *actual* reality of magic, would be examples of this. The postmodern, on the other hand, argues for the impossibility of this project; that we can only ever know the signs and symbols we use to represent the world as part of an ultimately self-referential system, that we can never breach the discursive reality that subsumes human life. Human beings, in this way, construct the meaningful worlds they inhabit. There is no point looking for 'truth' as such.

Derrida's 'deconstructive' approach similarly critiqued the notion that any meaning can exist for itself without reference to its own opposite, and myriad other signs and symbols. For him, this notion was one example of the 'metaphysics of presence' that he argued lies at the heart of Western philosophy: that is, that it is fixed in, and builds up from, the the idea of the thing that is present, utterly there and stable in its essence. Descartes' 'firm and permanent' foundation in the unified cogito is the example (in the modern Western tradition) *par excellence* here. For Derrida, this overlooks the point that the possibility of that presence rests upon the absence of what that thing is not. Every presence brings with it the presence of an absence. Again, pure, objective knowledge becomes an impossible-to-obtain chimera.

In a new era of capitalist production dedicated to the production and exchange of knowledge, signs and symbols, Lyotard (1979) argued that Wittgensteinian 'language games,' discourse, and narrative were the basis for the establishment of all truths, from the 'traditional,' to the scientific: truths, which, especially in the work of Foucault, were expressions of the powerful to manipulate the terms of the discourse. For his part, Bourdieu's theory of *habitus* aimed to understand the dialectical relation between social structures and cultural rules and the intuitive, performative, and inventive *practices* through which these are taken up and acted out in the bodily disposition of individuals (Bourdieu 1977). In other words, history had produced structure and culture and turned these into nature through the medium of the human body-self which in turn created and recreated structure and culture anew.

These were ideologically powerful tools and especially useful for South African anthropologists writing against the reified, essentialized notions of culture, structure and tradition through which the apartheid regime justified its policy of 'separate development' (Mafeje 1971, Boonzaier & Sharp 1988). If that which was presented as 'natural fact' – 'tribes,' 'cultures,' 'races' – could be shown to be the constructions of politically motivated discourse, then they could be *deconstructed* as such and would consequently lose their fetishized power as objective precursors of policy formation. 'Culture' could be seen as a tool at the service of, rather than a master over, a humanity which is therefore endowed with powerful individual and collective agency in the production of the worlds it constructs.

Many anthropologists have built on these trends in philosophy to develop theories in their own fields, including in the study of magic, witchcraft, sorcery and healing. For example, in 'Medicine's Symbolic Reality (1973),' Arthur Kleinman argued that all medical systems, 'Western' biomedical included, organised disease events according to culturally-specific 'explanatory models' which fundamentally influenced the way disease is experienced, understood and treated. The physical reality of the disease became, through the medium of symbolic reality, the subjective experience of illness: a process that he claimed could even influence the physical development of disease itself (Kleinman 1973, 1980). Today, the importance of understanding a patient's own explanatory model is taught to aspiring doctors in the US (though often in a superficial form which Kleinman himself has criticized [Kleinman 2013]), and is a theme in many a social science paper attempting to bridge the gaps between global and local disease aetiologies. In South Africa, explanatory model approaches have proven popular and useful, for example, in assessing 'culture-bound' psychopathological syndromes (Aina and Morakinyo, 2011); Muslim healers' perceptions of mental illness (Ally and Laher, 2008); to facilitate collaboration between traditional practitioners and primary health care staff (Campbell-Hall et al., 2010); in comparing 'Africans' experiences of 'indigenous healers' and psychiatry (Ensink and Robertson 1999);

and to facilitate communication between Xhosa-speaking patients and English-speaking doctors at a paediatric hospital (Levin, 2008).

One of the most impressive and influential works on the power of words, signs and symbols to form realities in relation to witchcraft and magic, was Jeanne Favret-Saader's *Witchcraft in the Bocage* (1980). Favret-Saader's argument in this wonderfully well observed ethnography is predicated on a simple insight that linguistic studies (and Wittgenstein) had observed, and what the people of the Bocage also knew: that "there cannot be any statement which is not upheld by its relationship to the stating subject." In other words, saying something through look, touch and/or words to someone, always puts you in a relationship to that someone else and calls "forth a response from another subject" (Favret-Saader, 1980: 27). That being the case, magic, in her opinion, turns around words' power to put us in relations of unequal power with those we speak with and to, to 'catch' us in the webs of signification that they weave. Into this context steps Favret-Saader who quickly realises that it is impossible to collect positivistic information about magic: people assumed the more she collected, the more power she would possess and so in turn set about feeding her nonsense, or even casting spells at her. A neutral ethnographic position was simply not possible. From this realisation, that she would have to accept her role in 'a totally combative situation' (1980: 12) grows an innovative ethnography that eschews the previously accepted position of the 'indefinite one' reporting on the subjective reality of informants – lacking any genuine agency - who are spoken of and for but who never themselves speak. Thus, her own experiences of bewitchment are given as valid accounts in support of her argument. The people she writes about are real individuals, not expressions of particular social roles.

Others, similarly conscious that words had the power to create new realities, to disfigure the worlds they described, developed new styles of anthropological writing, combining novel literary and ethnographic styles, attempting not to offer an objective account *of* the lives others but which sought to go along *with* them and evoke a sense, through effective *storytelling*, of their reality (see Taussig 1987 for a classic example of this): a reality about which *they* (the traditionally silent 'informants'), not the anthropologist, emerge as the experts. This has been particularly well developed in Isak Niehaus' recent (2013) book which, following the life of one man in South Africa, traces witchcraft less as something which is *believed* than as something which is *lived*.

From the late 1970s on, Michael Taussig's (1977, 1980, 1987) influential work in South America took this 'going along with' approach in overtly political directions. With a conviction that anthropology's principle aim should be to critique Western capitalist culture (i.e. that culture to which most anthropologists are 'native'), he argued forcefully that studying those at the periphery of the capitalist

system would generate novel critiques through local eyes (Taussig 1980). His South American worker ‘informants’ stories about other workers making deals with the devil, deals that bring them riches for a while but which then lead to their inevitable and sticky deaths, are not taken as *beliefs*. Rather, these are accurate critiques that contrast the workers’ lived reality of capitalism (that it is destructive) against the magical belief promoted by the system itself (that it is productive and makes people rich) (Taussig 1980).

Locally-generated re-imaginings of the powerful fantastical magic – that of the commodity form – through which capitalist modernity operates, was the subject of Comaroff and Comaroff’s (1999) influential take on ‘occult economies’ in the ‘new’ South Africa. In a context where elites were able to rapidly, and mysteriously, capture wealth from far-off sources whilst others languished in poverty, people increasingly imagined that they too could access this power through equally occult means. Resting on the premise of a symbolic projection from the ‘spiritual’ on to the political realm, these and other works have aimed and largely succeeded at taking the crucial step of moving ‘magic’ from any unique association with the remote and arcane, the rural and ‘traditional’, and located it firmly in the realm of the globalized ‘modern’ world (e.g. Ciekawy and Geschiere 1998; Geschiere 1997; Moore and Sanders 2006; Bonhomme 2012; Stengers, Pignarre & Goffey 2011).

The knowing body

The late 1980s to present has seen the publication of many accounts that locate the anthropologist in the midst of magic, witchcraft, sorcery and healing: accounts where, again, such experiences are taken to be valid sources of ethnographic proof; and where the ‘objectivist’ knowledge of anthropological forebears such as Evans-Pritchard and Levi-Strauss is deemed inadequate to fully understand magical, sorcerous phenomena. Influenced by Bourdieu’s work, and a return to the phenomenology of Maurice Merleau-Ponty (1962), more and more attention has been paid to practice, the body and the senses in human social life, ‘magic’ included. Deconstructing the ‘Cartesian mind-body dualism’ has become a concern, particularly among anthropologists striving to understand contexts where such a duality seemed to hold little purchase (e.g. Jackson 1989, 1996, 2005, Stoller and Olkes 1987; Stoller 1997; Devisch 1993; Csordas 1994, 2002; Kapferer 1997). What it means to ‘to know’, these studies argue, rests not just in the objectified gaze, where seeing is believing, or self-encapsulated, constructed worlds of symbol and signification, but in the sensorial round of lived experience, in the senses, including and transcending all of the five traditionally recognised in Western conceptualizations of the body.

Philosophers, anthropologists and others from and writing from former colonized countries have re-claimed as legitimate the ways of knowing of epistemologies formerly explicitly denigrated (e.g. in Tylor and Frazer's work, or by missionaries and other colonial and apartheid policies and attitudes); or implicitly negated (e.g. in Evans-Pritchards work) by anthropologists looking for the objective truth behind native fallacy. This was, for example, a motivation behind Mbeki's claim for an 'African Renaissance'. As mentioned in the introduction, Mbeki's take on this, combined with a naïve reading of social constructionism, became destructive, bogged down in its own kind of fundamentalism. Others, however, have ventured far more sophisticated and nuanced reclamations of epistemological territories captured by modernist logics. In Southern Africa, van Binsbergen (2003, 2013), himself trained as a Sangoma in Botswana, has argued in favour of an 'intercultural philosophy.' Techniques of divination and healing, he argues, would be considered part of a shared human epistemology offering knowledge of an expanded reality, of which science glimpses only a particular aspect. Achille Mbembe, taking influence from Derrida, argues that unlike in dominant Western philosophical traditions, 'autochthonous' southern Cameroonian ontology (echoing Derridean deconstruction) recognises that absence is not totally cut off from presence, that the invisible is a condition for the visible. Just because something is not visible nor even sensorially apparent – the beings through which 'magic' operates, for example - does not then reduce it to '“non-being” (irremediable absence) ... or, worse, of the order of unreality' (Mbembe 2001: 144). These are still presences to be contended with, and *lived with* in human life. Taking up this insight, Nyamnjoh writes that

The popular epistemological order in Cameroon and most of Africa does not subscribe to the same dichotomies [as Cartesian thought]. On the contrary, it builds bridges between or marries the so called natural and supernatural, rational and irrational, objective and subjective, scientific and superstitious, visible and invisible, real and unreal; making it impossible for anything to be one without also being the other. It is an epistemological order where the sense of sight and physical evidence have not assumed the same centrality, dominance or dictatorship evident in the western export's 'hierarchies of perceptual faculties' (van Dijk and Pels 1996: 248-251). It has equal space for all the senses, just as it does for the visible and the invisible. The real is not only what is observable or what makes cognitive sense; it is also the invisible, the emotional, the sentimental (Redfield 1997). In this epistemology emphasis is on the whole, and truth is something consensual, not the result of artificial disqualification, dismemberment or atomization ... Far from contradicting the western epistemological import, the popular epistemology actually complements or completes it.' (Nyamnjoh 2001: 29, 47)

Thus, not only is bodied personhood formed in sensuous, practical relation with the human and non-human constituents of the visible world, but also with the beings or presences of the invisible world, too. A masterful example in this vein of recognising and engaging wider spheres of knowing, René Devisch's (e.g. 1993, 2002, 2013) studies of sorcery, divination and healing among the Yaka people of Zaire (now DRC) aim at 'disclosing the 'bodily' ways in which people create and engage in a culture from within its own genuine sources' (Devisch 1993: 2). Beginning his fieldwork in the early years of Zairean independence he is, as a Belgian, both deeply affected by the post-colonial moment he experienced and acutely aware of the moral implications of writing as a citizen of the former colonizing country (1993). Aware, too, that he could never render an objectively true account of Yaka healing: what he *could* do, with sensitivity to the body and the senses, is to translate what emerges from creative inter-subjective relations between Yaka people and himself: a 'co-naissance', as he calls it, a 'co-birth' at the intersection of 'researcher' and 'researched' (Devisch 2007: 101).

Through deep immersion in daily Yaka life, he attempts to 'discover, little by little, a more fundamental level of practice: the complex, and subtle weave of culture, stemming from the wealth of the senses, the emotions, the body in and between people and their lifeworld' (1993: 7). Briefly, he argues, with inspiration from Levi-Strauss and Freud, that the victim of sorcery, weakened by ill-health and omens of misfortune can succumb to the 'unbridled force' of the id, the sorcerous destruction of all symbolic order: the victim abdicates their own status as a subject and becomes beholden to the terror that someone else is responsible for their state, vulnerable to malevolent thoughts and spirits to the point of paralysis and even death. It is the role of healing rituals, through the creative, musical, resonant, manipulation of metaphor and bodily affect, to reintegrate the person into harmonious relations with the weave of self, community, and environment: the relations that are the very source of life itself (Devisch 1993, 2002). Different to the healing body posited by Turner, Devisch's body is not just the site for the re-inscription of social order through the energizing effect of *communitas*, but is a source itself for the creation of new, life-giving, symbolic associations and affects (Devisch 1993).

5.) Late 1980s to present: epistemological turn to ontological questions. Relational ontologies and concept=thing approaches.

In many ways, the line between epistemology, "The theory of knowledge and understanding, esp. [sic] with regard to its methods, validity, and scope, and the distinction between justified belief and opinion," and ontology, "The science or study of being; that branch of metaphysics concerned with the nature or essence of being or existence" can be a hard one to draw (Oxford English Dictionary Online 2014). That is because *how* we know, and how we know we know can never entirely be separated from *what* we know. An epistemology that recognises the validity of a wide scope of bodily

and sensuous knowledge implies that there are existents, beings and or forces of certain forms to be *sensitive to*.

Nevertheless, since the late 1980s or so, generative currents of philosophy and anthropological theory have emphasized thinking about *what* is known or thought to exist, alongside thinking about how such things are known. This is an important move because without opening existence up for radical discussion, people's ideas of magic and related phenomena do not require us to think beyond cultural constructions of, and culturally specific ways of knowing, a universalized world. Addressing this issue in no uncertain terms in 1992, Edith Turner challenged more than a century of theoretical orthodoxy in anthropology by asserting the reality of a poignant research experience in Zambia. During a healing ceremony for a patient who had been bitten by 'the tooth of a dead hunter' she witnessed a 'large grey blob of something like plasma' emerging from the body of victim (Turner 2011: 2, Turner 1993: 9). 'There is spirit stuff,' she realised,

there is spirit affliction, it isn't a matter of metaphor and symbol, or even psychology. ... anthropologists have perpetrated an endless series of put-downs as regards the many spirit events in which they participated — "participated" in a kindly pretence. They might have obtained valuable material, but they have been operating with the wrong paradigm, that of the positivists' denial (Turner 1993:9).

Like Jo Wreford (e.g. 2008, mentioned in the introduction) writing later in the South African context, Turner treats experiences of spirits as real in and of themselves, irreducible to symbol or 'culture.' In a kind of super-charged phenomenology, ritual experience is taken as revelatory of the existence of beings and forces not normally accessible. The 'kindly pretence' of which Turner speaks is what Isabelle Stengers (2011:303) calls '*the curse of tolerance*': the tolerance 'we' Enlightened, educated lot have offered to those whom (we believe) have not yet lost the innocence that makes possible the belief in invisible beings. 'Tolerating' and 'respecting' others' beliefs, we nevertheless develop theories which redefine the way the "other" inhabits their world in to terms that we find intellectually acceptable: magic is explained as 'just' language games, as local interpretations of economic realities. This makes it very difficult for anthropology to produce fair translations of field experience, since in order to survive the journey from world to the exulted corridors of the academe, research participants, or our written versions of them, are obligated to leave their 'freight of gods, attachments, and unruly cosmos' at the door (Latour 2004:457). Anthropology's political project of decolonizing knowledge is therefore hampered from the get-go. In addition to the strategy of recognising the reality of magic/witchcraft/healing *experiences*, at least two kinds of often overlapping theoretical strategies –

relational ontologies and what, borrowing from Holbraad (2011), I call 'concept=thing' approaches - have been developed in an attempt to break this curse.

Relational ontologies

In recent years, 'relational ontologies' have become quite widespread and useful tools for thought and analysis, not just in anthropology, but in theology, philosophy, psychology, and educational theory, among other areas (Wildman 2010). The underlying notion here, in Ingold's meshwork or Latour's Actor Network (ANT), for example, is that the relations between entities are ontologically more fundamental than the entities themselves: the 'things' of the world emerge in and through their relations with other 'things.' Like Latour, other relational ontologies proposed by anthropologists have often taken their cue from, and translated into academic terms, the ontologies and epistemologies of 'indigenous' people previously labelled as 'animists' by Tylor and generations of anthropologists (Bird-David 1999). Ingold's notions of 'sentient ecologies' and 'meshworks', are greatly inspired by his fieldwork among people of the circumpolar north, as well as ethnographies of north American first nations people, such as Irving Hallowell's work on 'Ojibwa Ontology' (Ingold 2000:90-110; Hallowell 1960). Indeed, this interest in how 'animists' relate to their living environment has to a large extent been precipitated by the world-wide ecological destruction wrought by the dominant mode of production, and by indigenous resistance to destruction of ecologies in which and through which they live.

While Tylor had claimed that 'animists' projected soul into a soulless world, anthropologists, calling for rethinking of this account in the late nineties, suggested that 'animism' was better understood as a way of attending and relating to the world. That is, of following, with sensitivity, the ways of animals, plants and other entities as they relate to one another, to people, and to the world in general. In this manner character, intelligence and intentional worlds are not so much imputed or projected as *revealed*. At the same moment, in this relation with people, animals, plants, even rocks, our own human intentional world is brought into being. Following David Abram (1996), and very much in line with William James' (1912), Tim Ingold's (2007b), Merleau-Ponty's (1962) and my own arguments, Stengers (2012) argues that experience can be understood not as a way of re-presenting an external world in the interior world of the subject, but as a way of *participating in the world*. A upshot of this perspective is that when we consider the relation of ourselves to other beings, even apparently 'inanimate' things external to us, we would do well to pay attention to what experience actually tells us: i.e. that when we are 'moved' or even 'taken away' by a landscape, a piece of music, it is not all 'in our heads', but a way of meeting the world half-way: an experience that is "not ours" exactly, but which rather "animates" us, 'making us witness to what is not us.' As Stengers puts it, this is 'the

experience of an agency that does not belong to us even if it includes us, but an “us” as it is lured into feeling’ (Stengers 2012). This agency is not ‘in’ any one thing in particular but derives from the animating ecologies of things and relations within which all things necessarily subsist: where ‘my existence is my very participation in assemblages ... I am not gifted with agency or intention. Instead, agency—or what Deleuze and Guattari call “desire”—belongs to the assemblage as such (Stengers 2012).’

This productive intellectual shift represents a move away from paralysing worry about how people, ensconced in the realm of mind, *construct* the character of non-humans, to an interest in how humans and non-humans *meet with* one another, and in relation, are transformed. For so-called ‘animists’ one’s relations, with other humans, animals, plants, weather, ‘spirits’, the living world, are taken as constitutive of the human person, and the realm of what the modern constitution might call the ‘social’ is not constricted to the human (Latour 1993: 42, Ingold 2000). Instead, human beings find themselves entangled in a multi-agential world, alive and sentient, responsive and attentive to humans, as humans must be responsive and attentive to ‘it’ (Ingold 2011).

Relational objects of toor

Magical practices (including Kamiesberg toor, *baljas* or *baldejas*) often involve the use of objects said to attack, protect and achieve other effects in human life. Since, from a relational ontology perspective, one’s relations, potentially with all things, including humans and non-humans, *are the tangle* in which and out of which human life emerges, such objects can play a transformative role in people’s lives. Not only because one *believes* they will, but because, as practitioners themselves often recognise, such objects are part of, and so necessarily *active* in, the relational tangle that constitutes life. In a way, relational ontologies approaches, and in general, attempts in anthropology to recognise and expand the role of non-humans and ‘things’ in human life, have been an attempt to emancipate what were previously taken to be dumb beasts or lumps of dumb matter requiring the projection of human symbolic worlds *on to* them in order to be animate, alive, active constituents of the world. As Holbraad writes:

... archaeologist Severin Fowles has recently observed (2008, 2010) [that] the rise of ‘the thing’ in social theory at the turn of our century has emancipatory tonalities that echo the emancipation of ‘the native’ (or the ‘subaltern’) a generation earlier. If for too long things, under the guise of ‘material culture’, had ‘hibernat[ed] in the basements of museology’, as Tim Ingold puts it (2007: 5), their study in recent years

has been all about achieving their visibility: making the thing manifest or, in Peter Pels' phrase, allowing it to 'speak back' (Pels 1998: x). (Holbraad 2011: 2)

Similarly, since there is no necessarily assumed hierarchy of influence drawn between relations with corporeal and non-corporeal entities, relational ontologies approaches have been of great use to anthropologists studying the unseen dimensions of magic, witchcraft and related phenomena: a way, perhaps, to emancipate these presences in human lives. 'Evil spirits' and so forth, perhaps sent by malicious others, do not have to be translated as human projections on to objective phenomena, but are understood instead as relationally generated entities that play a causative role every bit as real as the human beings whose lives they invade – they exist, precisely, in those relationships themselves. Adam Ashforth, for example, has used similar arguments to oppose taking such entities as 'mere products of the human mind or forms of belief, and thus irreducibly subjective' when trying to understand what he calls the 'spiritual insecurity' and related malicious presences which today pervade the lives of millions of (especially materially poor) South Africans. Rather, such entities, Ashforth suggests, should be taken as part of the social field in which human beings make their lives (Ashforth 2010a: 105).

Concept=thing approaches

It is one thing to recognise the possibility and presence of invisible forces and beings in the relational tangle of life. It is another to be able to translate these with any kind of fairness to research contexts. In 1998, around the time that authors such as Ingold and Bird-David were arguing for a re-thinking of animism, Eduardo Viveiros de Castro articulated the profundity of the challenge faced by anthropologists who would aim their work at the decolonization of people, of their relations and ontological commitments (Viveiros de Castro 2012). Recognising and claiming the reality of embodied, practical, sensuous experience, and expanding the reality of these experiences outward into the relational field of life were certainly productive moves. Viveiros de Castro, however, challenged anthropologists to be very careful of their conceptual presumptions in imagining that 'body' and 'mind' could or should be brought together in sensuous experience (of witchcraft/magic/healing, for example). Or, for that matter, assuming that 'we' have never been modern in the same way that 'others' have never been modern. Challenging Cartesian assumptions was necessary but, a first question is: what, precisely *are* 'body' and 'mind'? Are they the same everywhere? Is it only Europeans who imagine these two realms to be separate?

Viveiros de Castro argued that in common European modernist metaphysics 'mind' (or 'culture') is what distinguishes humanity from all other beings, while our biological bodies, our 'nature,' unites us

with those beings: we share our atoms with the universe, our genetic inheritance with all life. From the perspective of many Amerindians, he argues, the relationship between nature and culture is inverted: it is 'culture' or 'mind', and the possibility of having a perspective on the world, that unites human beings with all other beings, whilst it is the form of bodily relational practice exercised by each being that distinguishes it from others. In an effort to recognise (what he sees as) the world-making vitality of concepts, Viveiros de Castro argued that in conceptualising the world differently, in *seeing* the world therefore precisely from a different perspective, Amerindians were *being* (or rather *becoming*) the world differently. From their perspective, there was one culture, multiple natures. It was an ontological not an epistemological difference. So, *contra* the then current intellectual move to challenge 'Cartesian dualism', and (for example in the work of Ingold, to whom he explicitly refers [2012:96]) to hold the animists as those not dichotomized like 'us' ['Western'] uniquely maligned species of person, Amerindians *do* distinguish between mind and matter, nature and culture, but that nature and that culture are very different things to what anthropologists had (often) assumed them to be.

What was key here was making clear that the 'things' that anthropologists assume to be in the lives of research participants, and the things in those lives, might not be the same *thing* at all. He was not the first nor the last person to make this argument, but his was a particularly clear and influential version of it. Along with Viveiros de Castro, Marilyn Strathern (1988), Kwasi Wiredu (1996) and Martin Holbraad (2011, 2012a, 2012b), among others, have argued that it is imperative to question whether the 'things' of which anthropologists write, and the underlying categories of their own thinking, are fair translations of the concepts held by the people so described. If they are not, then not only do we continue the colonial project of effacing other people's worlds, we also make it impossible for those outside the academe to contribute to the conceptual repertoire available to human thought. To avoid this, these authors argue that anthropologists should let the world be emptied of all content and allow the people they work with *define*, not simply *represent*, the types of things of which it is composed (Holbraad 2011). In other words, rather than assume concepts to be representations of things, they suggest that the anthropologist should take the position that concept=thing. Rather than analysing concepts employed by research participants, anthropologists can consider the use of those concepts as themselves tools of analysis and insight.

In recent years, Holbraad (2011, 2012a, 2012b; Holbraad *et al.* 2014) has taken up and taken forward the so-called 'ontological turn' in anthropology and applied, disputed, and reworked the arguments of the likes of Latour, Strathern, Ingold and Viveiros de Castro in his richly theorized and described accounts of Ifá, an Afro-Cuban form of divination. Ifá diviners claim their divinatory readings (e.g.

about *trabajos* – ‘works’, ‘witchcrafts’) are indutible, they cannot be challenged. Such claims remain impossible when read through a representationalist concept of truth: one which points or does not point to an objective reality. Such representationalist truth can either dismiss this as nonsense (à la Tylor and Frazer) or render these claims reasonable only by turning explanation resolutely away from what the diviners *actually say and do* and giving their readings a functional social role as Evans-Pritchard did in his analysis of Zande oracles. For Holbraad, this misses the point, arguing that a better way to proceed would be to re-think the concept of *truth* itself: to think of truth, as understood by diviners and their clients alike, as something which is emergent, changing and mobile. Holbraad thinks with and through this conceptualization of truth when interpreting his research experiences.

Similarly, in his exploration of post-socialist Mongolian shamanism, Morten Pedersen refuses to explain (away) the tricky, violent, slippery spirits which took hold of large numbers of ‘not quite shamans’ in the 1990s as ‘symbolic’ embodiments of unemployment and poverty. Instead, he argues ‘that shamanism *is* the (impossible) form assumed by the world in northern Mongolia after socialism. Shamanism is, so to speak, an ontology of transition’ (Pedersen 2011: 35). In other words, the concept Shamanism and the phenomena of Shamanism are not separated: Mongolian peoples’ reflections on those ‘not quite shamans’ and their behaviour can be taken as insights into the world itself, not just reflections of what the anthropologist knows to (really) be a matter of social-historical processes. This concept is of analytical value to Pedersen himself in his struggles to understand the ethnographic context.

My own approach: looking toward the following chapters.

To recap: it was not without challenge and risk that Descartes voiced his challenge to the dominant European metaphysics of the seventeenth century. But that he did proved to be a one key contribution to the development of ‘modernity’, to technological, productive, economic, and scientific networks that, for better or worse, today criss-cross the earth. In the early days of anthropology, when it appeared that the contemporary model of civilization and knowledge, of a world of matter known by natural laws accessed by the new sciences, would inevitably supercede all others, anthropologists easily dismissed as empty superstition aspects of colonized people’s thought that they did not understand. What was in the Netherlands in 1637 a revolutionary and emancipatory shift of perspective became in the colonies all too often a tool of oppression and denigration. During the course of more than a century of increasingly sensitive participant observation, and social-ecological crises that have more and more undercut notions of the inevitable march of capitalist progress, of the unique ascendancy of any one way of being and knowing, anthropology has repositioned itself as a

site where the genuine diversity of human ways of being and knowing might be studied and articulated.

The recent 'ontological turn' is important precisely because it holds at its core the idea that the form of the world, of how reality *really* is is not a settled question. Thus there is no universal true version of the world such that when people's ideas, and the beings, forces and presences that compose their lives do not accord with this version, one is able to necessarily claim 'belief' or 'cultural construction.' The move enables one to stare the curse of tolerance directly in the face and permit other versions of reality to challenge how the world is defined. Nevertheless, this theoretical 'turn' has come in for a fair amount of, somewhat justified, criticism (e.g. Carrithers et al. 2010). The two most serious – and interconnected – charges, as far as I can see, are (1) that, as often happens with academic trends, the most recent or popular trend becomes viewed by some as *the* theoretical turn that trumps all that preceded it so that everything comes to be seen as an 'ontological' question; and (2) that this opens toward the spectre of a radical ontological relativism of infinite realities without any connections or limits between them. This second charge is of particular concern at a historical moment when the disaster of Mbeki's naïve deconstruction of scientific knowledge has not – and, indeed, should not – be forgotten. However, while it may be a challenge, and a risk, to think, this should not put off all thought and study of existences and knowledges that trouble physicalist assumptions that arguably dominate contemporary metaphysics.

Turning to the first charge, this is a fair criticism since not every instance of the translation of ethnographically known phenomena has to do with contests over existence or being – sometimes it is an epistemological issue, a 'cultural' issue in the sense of people having differing perspectives on what is recognised by all parties as the same *thing*. I see the move to think ontologically as a useful *addition* to anthropology's conceptual repertoire that helps to surface what is at stake when questions of and conflicts over being or existence arise. That would include disagreements over what 'being' and 'existence' themselves are.

Thinking back to Charlie's story, and the toor – *nature* distinction that precipitated the above historical review, a sharp-eyed reader could well point out that "the people you're talking about aren't actually distinguishing between magical and *natural* ailments, at least not in the example you gave above. Just look at what Koos said about the 'natural' wind he thought was the cause of Charlie's pains. What does he mean by suggesting it might have been 'picked up' in an accident? How and why could it have entered his blood stream, how and why could it be said to have slowed the flow of blood and cooled the blood and how and why could this lead to an infection? Just like the magical causation aunty Sarah later proposes, this is not a 'nature' that would be recognisable to all." I would have to agree. Whilst

a long history of engagement with researchers, nurses, doctors, schools, books, radio, TV and (more rarely) internet, means that what people in the Kamiesberg designate as 'natural' can often accord with what someone trained in biomedicine might also recognise as a (at least partially) legitimate theory of illness causation, this is clearly not always the case. For many people living in the Kamiesberg, *wind* and *toor*, and other phenomena besides, have also to be considered. The *natuurlike siektes* people speak of are not always those which would be recognisable to biomedicine.

In other words, here we are speaking of at least three different kinds of reality. Against the 'nature' (number one) of mysteriously moving 'winds' and stagnant, cool blood, Koos and Aunty Sarah contrast *toor* (number two): a phenomenon defined in its unnaturalness against a nature which is not Nature (number three) in the sense that it is known by science. Of course, in practice these different kinds of reality slide continually into one another – just think of the ease at which Charlie's wind slipped from *natuurlike* to *toor*. In addition, the fracturing history and present of Namaqualand and the propensity for invention of *kruiedokters* means that any such 'nature' must be understood as partial and contingent. Nevertheless, in order to try to understand 'unnature' number two, one needs at least some grasp of relevant aspects of 'nature' number one and how these relate to one another. I turn to this in chapters three, four and five. The point here is that, for Koos, aunty Sarah, and Charlie's family, at that moment, it mattered that *toor* and a *wind* were present, in existence there in that room. They were, in Marianna's words (above), '*iets wat is.*' From their perspective, it would not be accurate to describe *wind* or *toor* as somehow outside reality, *in* their 'minds'. These are, then, ontological questions.

Thus I attempt in the following chapters to translate research participants' concepts in such a way as to allow them to define, not only describe, realities. This methodological reversal is not at all to assert a belief in everything *kruiedokters* claim, to lock people in to 'an ontology', but a first and necessary step, I suggest, toward understanding them on their own terms, to give research realities space to breathe in my words: to make possible the co-naissance of this project in a generative place somewhere between 'researcher' and 'researched' (Devisch 2007: 101). I try, as well as I can, to ensure that the things I write of are at least fair translations of what research participants experience, and, as far as possible, to think *with*, not just about the vital concepts I attempt to translate.

In an effort to maintain this conceptual breathing space, in chapter two, I explore Nicola's work of identifying and determining bioactive compounds in light of Latour's recent *An Inquiry Into Modes of Existence* (AIME) (2013). An AIME perspective is useful here since it affirms the realities that the natural sciences investigate and produce, whilst simultaneously specifying the extra-ordinary and particular nature of their achievements. This suggests, with a focus on an empirical case study of

Nicola's techniques and approaches, that all of reality cannot be reduced to or subsumed by a world of pure physicality. This helps us think in the terms of a more spacious kind of metaphysics where concepts that do not fit into a bifurcated nature are allowed the possibility of finding purchase in the world, of knowing and accurately defining the world their own ways, according to their own logics, not just offering (ultimately false) descriptions of it.

However, there is a danger, as per the second charge, above, that this approach leads to radical ontological relativism of infinite realities without any connections or limits between them: making impossible the kinds of conversations David was hoping to pursue. Here again AIME offers a useful interpretative frame for considering my material in terms of the interdependency of, crossings between, and truth conditions of, the different modes of existence in which Kamiesberg plants play a role. Not only are modes interlinked, but they are, suggests Latour, not infinite in number, making possible, as discussed in the conclusion, the composition of an expanded common world.

Nevertheless, it would be shortsighted and naïve to assume that all other preceding theory is trumped by the ontological turn and that it, finally, really, 'takes magic seriously.' As long as one remains aware of the assumptions made by any theoretical tool, there is no reason to dismiss its insights and sensitivities, to throw the baby out with the bath water. Thus, virtually every theoretical tool mentioned in our brief historical review still holds some kind of valid insight and I draw on a number of them as such – as and when it makes sense to do so, when research events suggest it. In particular, the move toward thinking the body, toward the sensuous round of experience since the 1980s is crucial if one wants to be sensitive to the presence of the invisible in people's lives. Toor does exist – at least to an extent- in the affective relations between people, is often known, and made apparent, in bodily practices and sensitivities, in the 'alongly' movement of life (Ingold 2007a: 204) it is not just in and through articulated and articulable concepts that people know, define and describe the world. Thus I follow the subtle lead laid down by writers such as Kapferer, Stoller, DeVish, Jackson and others in recognizing the importance of going *along with* research participants, of paying attention to the sensory richness of ethnographic events. I attempt to learn from and emulate these authors' abilities of subtle and evocative description.

As we will see in chapters three, four and five, in trying to follow events in this way, I was impelled to recognise that relations of direct importance to the work of *kruiedokters* include, but cannot be limited to, the affective relations between humans. In describing these relations, I find inspiration in Ingold's meshworks, Latour's ANT and Stenger's notion of 'ecology'. I develop the fiction of 'ecologies of (un)wellbeing' to help think these relations, where people's concepts themselves are a constituting part of the relational mesh in which wellbeing waxes and wanes.

2.

On the trail of bioactive compounds

From the beginning of this project, Nicola's passion for plants, for understanding their lives and their workings, were clear to me. She studied for her undergraduate and honours degrees in the botany department at UCT, and her masters, also at UCT, in 'kind of' (as she put it) plant genetics. Unsure of what she wanted to do, she went and worked for a while in a completely different field, writing technical manuals and educational material. "It was quite nice," she said,

but it was going nowhere so I started looking around and I thought 'maybe I'll come back to university, let's [see] what research is being done,' and I [thought] ' [I would like] to get back into chemistry'. So I came and I saw David [Gammon] because he was the student advisor. He [said that] 'Well, it just so happens that we need somebody with botanical expertise who wants to get in to chemistry because we have this project coming up in Paulshoek.' And I [thought] 'Oh Paulshoek, I've been there before'. Because I'd been there, with Timm [Hoffman], because Timm was my honours supervisor, way back when I did plant conservation, in 2004. And I [said], 'oh ja, I know Timm, I know Paulshoek, I've been to Paulshoek before.'

So that's how it all started. It was a serendipitous kind of event. It happens to be my old supervisor, it happens to be [a] village which I've actually visited before, and they happen to have this project and I happened to have [turned up] at just the time they were looking for someone, so it all kind of came together.

Her study would aim at working with 'traditional' knowledge of medicinal plants, alongside analytical techniques used in organic chemistry to help identify molecular formulae and structures, and medicinal potential, of the major metabolites in plants in and around Paulshoek. Metabolites are the molecular products and intermediates of metabolic processes and are responsible for many of the (bio) medicinal properties of plants in their interactions in the human body; where 'bioactive chemicals exert their function through binding to one or more protein targets' in cells composing the

human body (Wheat 2013:212). Until recently, natural products chemistry has aimed at seeking out and determining, *single* organism-based compounds responsible for such bioactivity and synthesizing and developing these as pharmaceuticals. Nicola recognises in her thesis, however, that very often not only do herbalists and others use *whole* plants rather than rarified singular compounds in their medicines, they regularly use mixes of various *different* whole plants. This is certainly true of Koos, John, other Kamiesberg kruiedokters and other non-specialists preparing remedies from plants collected in the *veld* or grown in gardens. In many cases, bioactivity in these plant-based medicines is not caused by only one single compound, but by many, having additive or synergistic effects on human biology (Wheat 2013: 114). Additive refers to effects that are the sum of the effects of all the different compounds added together, whilst synergistic effects are those which are more than the some of these parts. An example of this would be one compound opening certain metabolic pathways, allowing other compounds to have an effect (Wheat 2013: 114).

Nicola suggests that the relatively new field of metabolomics – ‘the study of the global [i.e. aiming toward total] metabolite composition of a biological system, the metabolome’ - could offer routes toward understanding the complex bioactive interactions of potentially thousands of different compounds found in plant-based medicines (Seeds 2008). To do this she made use of, and forged new approaches in, instrumentation and software analysis associated with two technologies of great importance to organic chemistry: nuclear magnetic resonance (NMR) and liquid chromatography–mass spectrometry (LC-MS). These technologies are able to identify and determine hundreds (NMR) and thousands (LC-MS) of molecular compounds within plants.

A little chemical theory is necessary at this point to help make sense of the techniques of analysis used by Nicola. Firstly, ‘molecule’ is a centrally important concept that describes two or more atoms held together by chemical bonds. Atoms, according to chemical theory, are the basic structures of the 114 known elements of which the universe is composed. Each element is composed of a single kind of atom. Each atom is composed of a nucleus surrounded by a rapidly orbiting ‘cloud’ of differing numbers of negatively charged particles referred to as electrons (fig. 10). The nucleus is itself composed of differing numbers of subatomic particles, or nucleons: positively charged protons and neutral neutrons, which are themselves composed of even tinier particles (such as quarks, leptons). The number of

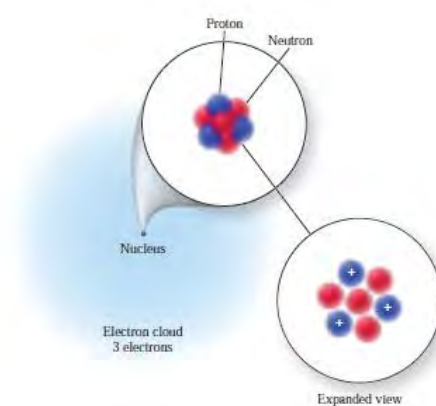


Figure 10. Composition of an atom.
Reproduced from Bauer, Birk & Marks,
2007:60

protons determines what element the atom belongs to, while the electron cloud strongly determines that element's chemical properties, such as the kinds of molecules and compounds (such as plant metabolites) it will form with other elements (Bauer, Birk & Marks, 2007). Molecules are two or more atoms that are chemically bonded, while compounds are molecules composed of two or more atoms of *different* elements. So, while all compounds are molecules, not all molecules are compounds.

A chemical formula describes how many of each kind of atom are in a molecule (e.g. H₂O, water: two hydrogens bonded with one oxygen), whilst the structure describes how these are bonded one to the other (fig.11), where different connectivities in structure can result in molecules of the same formulae showing wildly different kinds of properties, e.g. of bioactivity (Bauer, Birk & Marks, 2007).

Before she could begin collecting plants, Nicola first had to gain the correct permits from the relevant authorities in the Northern Cape Province. In this, she was greatly helped by the recent introduction of the *National Environmental Management: Biodiversity Act* (Act 10 of 2004, 2004), which came into effect in 2008. In theory an extremely stringent act, aimed at protecting 'communities' from biopiracy, no one in authority at that time –

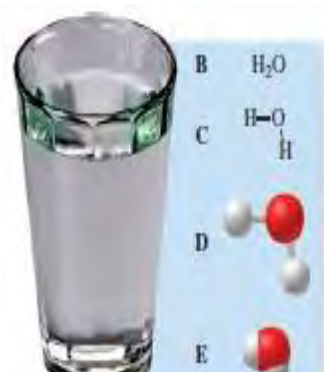


Figure 11. Ways of representing chemical formulae and structure of water molecules. Reproduced from Bauer, Birk & Marks 2007: 11.

in Nicola's experience in any case - actually knew how to complete the new, complicated forms. In addition, Nicola's project was directed primarily at scientific knowledge as opposed to commerce and so did not accord well with the format of the new forms which ask for complicated benefit-sharing agreements and forecasts of profits. In the face of these complications, the Department of Environment and Nature Conservation (Northern Cape Branch)²², decided to afford her clearance with the regular, pre-existing permits.

Even so, she still had to wait six months for the winter rains to cause the leaves of Namaqualand's plants to grow before she could get in a car, travel north up the N7 highway (a six to seven hour drive), and begin collecting plants species – as many as she could find - in and around Paulshoek. She collected both those used medicinally in the local area, and those which were not. Through surveying Paulshoek residents on their use of medicinal plants, interviewing two Paulshoek-based kruiedokters – oom²³ ('uncle') Jacobus 'Kooitjie' Corjeus and oom Gert 'Joelk' Dirkse – and consulting with Marianna on medicinal plant use, Nicola identified plant species with potential bioactivity that she could seek

²² Part of the Department of Tourism, Environment, and Conservation

²³ This term 'oom', literally meaning uncle, is used to refer to the brother of your mother or father, and generally to men a generation older than yourself and to men of middle to late age in general. I was sometimes referred to as 'oom Jossie' by children.

out for collection. In addition, Nicola randomly sectioned off small squares (approximately 2m x 2m) of south-facing *veld* around Paulshoek and methodically looked through those areas for any new plants not already collected. For each species collected, a photo was taken (fig. 12), and small samples of leaves, fruit or flowers were placed in a plastic bag (fig. 13), to be taken back to Cape Town for analysis for bioactivity. An example of each plant species would be later pressed and dried or pickled – to professionally recognized standards - and the plant botanically identified (figs. 14 and 15). Herbarium samples of each species were submitted to the Bolus Herbarium at UCT to serve as evidence that the botanically-described plant species she refers to in her work are indeed the plants she refers to (Wheat 2013).



Clockwise from top left: figures 12, 13, 14 and 15, Nicola photographs, collects, and presses her samples.

Once her plant samples (a total of 124 species) were collected, she had to rush back to the chemistry laboratories at the University of Cape Town. Samples would then be washed to remove potential contaminant, preserved and extracted in ethanol before their metabolic composition degraded so much so as to make them ineligible for analysis. They would then be refrigerated to preserve them and their potential bioactivity further. She would have to return to Paulshoek on a monthly basis to

collect plants as their differing life-cycles made them available for collection. In all, she would test ninety one of these plant species using the STN assays developed by GIBEX, which allow for qualitative testing for bioactivity relevant to health issues suffered specifically by people in economically marginalized parts of the world (Wheat 2013: 80), and in particular where bacteria, viruses, and parasites are becoming increasingly resistant to existent drugs. She tested for antibacterial activity, because of potential action against bacteria responsible for diseases such as diarrhoea, sexually transmitted infections, and tuberculosis. She tested for antifungal activity, for potential action against *Candida albicans*, (thrush), and fungal infection in agricultural crops. She tested for antioxidant activity, for its potential action against oxidative cell damage that has been linked, in her words, 'to cancer (Collins, 2005), heart disease (Palace et al. 1999; Kaul et al. 1993), Alzheimer's disease (Mariani et. al., 2005) and Parkinson's disease (Joseph, 2008)' (Wheat 2013: 82). She tested for protease and protease inhibition activity for potential inhibition or halting of the life-cycles of viruses such as HIV. And she tested for antihelmintic, or anti parasitic worm activity, for potential action against worm infections in human and animals. She would also test these plant species using Minimum Inhibitory Concentration (MIC) assays for activity against specific disease-causing bacteria or fungi, antibacterial and anti-fungal activity and where the assays are performed in a way which provides quantitative data on the levels of activity. Thus, for example, the assay might involve adding varying quantities of a plant extract to a sample of growing organisms or cells, and assessing the concentration at which the extract kills half of them – providing outcomes like the IC50 (concentration at which 50% of enzymic or cellular activity is achieved) or LD50 (the dose at which 50% of the organisms are killed). By implication, these more precise tests would allow her to work out the plant extract concentration level at which plants showed no significant bioactivity.

In each case, the basic, qualitative GIBEX and more exacting MIC assays would evidence the tested-for bioactivity (or non-activity) of each plant by particular traces, either visible to the naked eye, or through a magnifying glass, when the plant extract was brought into contact with various living or non-living media. In the GIBEX antibacterial assay, for example, this would be the presence (or not) of bacterial colonies grown from human saliva (Nicola's own!) on agar solution over a period of 24 hours: the higher the antibacterial potency of the plant extract mixed in with the saliva, the less bacteria one would expect to see. In the GIBEX antihelmintic assay, bioactivity was witnessed by the bodies of tiny dead worms in the bottom of a test tube. In the MIC antibacterial assay, ethanolic extracts were tested against bacterial cultures obtained from the American Type Culture Collection (ATCC). This time "Alamar Blue ... was used as an indicator of bacterial growth. Alamar Blue is a blue, non-fluorescent, non-toxic indicator dye that is reduced to resorufin, a pink fluorescent molecule, by enzymes present in living cells": the less pink Nicola could see, the less bacterial growth over a given period of time, and

thus the more antibacterial activity in the plant extract (Wheat 2013: 92). All of this was of course meticulously recorded in written form by Nicola – which plants, and which parts of them (leaf, flower, fruit), showed greater bioactivity; and at precisely which ratio of plant extract to ethanol solvent no significant bioactivity could be observed. Her records of this, again, served as proof that the plant species she would later claim show bioactivity, are the same as those she found growing in the *veld* around Paulshoek.

Across the two kinds of assays (GIBEX and MIC) Nicola found that 97.1% of plants showed some kind of bioactivity. A majority of plants exhibited antioxidant activity (86.3%) and antibacterial activity (73.5%) with rather fewer showing antifungal (29.4%), protease inhibition (15.7%), antihelmintic (3.93%) and protease activity (0.98%) (Wheat 2013: 102). Although there was no direct, one hundred percent correlation between the uses people in Paulshoek made of plants, and their bioactivity, Nicola found that there certainly were crossovers which were not random in nature. People regularly sought out particular species of plants for remedying particular illnesses where the bioactivities associated with those species were effective (in biomedical terms) against those illnesses (Wheat 2013: 208). Given that, as Nicola's work shows, most people in Paulshoek use *bossiesmedisyne* (literally bushes medicine) for treating everyday ailments such as colds, flu, and 'stomach problems' with definite, biological causative aspects, and people's awareness of simple biomedical theory, this convergence is perhaps quite unsurprising. In addition, some people make use of books such as *Medicinal plants of South Africa* (Van Wyk., Van Oudtshoorn & Gericke 1997), based on research carried out in the region, to cross check the plants they use and, in Koos' case at least, to identify new possible medicines. Such books are based on biomedical and chemical theory, detailing chemical structures thought to be responsible for medical propensities of those plants.

The high percentage of bioactive plants led Nicola to suggest that Namaqualand might be a 'bioactivity hot spot' (Wheat 2013: 111): perhaps because of plants' attempts to chemically protect themselves from herbivores, and adaptations to the extreme heat, high UV exposure and low rainfall of the environment (Wheat 2013). With her data in hand, she had to decide which plants she would focus on for eventual identification of bioactive compounds and elucidation of their molecular structure - a process which would involve collecting kilograms' worth of plants of a limited number of species. In making this decision, she considered:

... a combination of which ones had good activity, which ones had multiple activity – so if something was really strong only in one assay, I put it on the short list. If something was active in like three or four assays ... at mild levels, then it was also interesting and so that went on the short list. Then I started weeding

things out on the basis of 'are other researchers working on this ... you know Stellenbosch is working on *Galenia [africana]* at the time and I thought 'well, what's the point if they're going to get there first?' so I left that ... seasonality ... availability ... and also the size of the plants. Because if they're only three centimetres high and I need [for example] three kilograms, I'm going have to go and collect tons of the things. And local availability. So I didn't want to go and choose something that's only available in a small patch, a metre wide, in one place and I would tear up the whole patch for my experiment and you know ... its locally extinct. Just for my testing. So ... all of [those reasons]. That was how I decided on the ten plants.

From those ten, however, Nicola was obliged to narrow down to five species. In addition to time and finance restraints, other complications precipitated this narrowing of attention, as she went on to explain:

And from there I moved on to getting down to these five now [because of] complications along the way. So certain plants I discovered had fungus growing on them and I couldn't find clean enough individuals that I could actually work with. The one thing, the one plant on a small scale was great but when you start getting in to large scale the leaves are so dry that you have to add twice as much alcohol because it actually just sucks in all the alcohol. You're trying to grind it up and it just expands like a little sponge and you can't actually get anything out of it ... it doesn't extract properly.

From one ecology to another

Many researchers using ANT approaches to study the experimental establishment of scientific facts have shown how such facts rely on the alignment of myriad elements – the scientist in skilled practice, journal articles, the experimenter's machinery and equipment, funding, the object of knowledge (such as a bioactive compound found in a leaf) to mention a few – each in its own way acting on, and being acted upon by, the other elements (see, for example, Haraway 2008, Latour 1993, Law 2002). Such practices never gain direct or total access to the world, but rather render it knowable through a series of translations, a chain of reference, proceeding from world to measurement and record (Latour 1999:24-79). Since the models scientists and others work with in order to make sense of these translations necessarily exemplify certain, relevant aspects of phenomena, they render other aspects irrelevant (Elgin 2009). Moreover, there is no guarantee that all aspects of phenomena can be

modelled, still less that these can – without translation - be ‘added up’ to form a coherent, stable whole (Mol 2002).

Like all knowledge, scientific knowledge is local in that it is produced through practices located in particular places and requires work to make locally produced knowledge applicable in other locales. The impression of universality that scientific knowledge has accrued to itself derives not from having developed an exact theoretical mimesis of the world, though its models are often extremely accurate and effective, but rather from having worked to establish a network of equivalences in technique, measurement, and conditions of testing that stretches across the globe. In this work, science has been immeasurably assisted in the development of tools of representation – such as the printing press, and the internet – that have made it possible for representational *translations* of ‘that which has been observed, created or recorded at one site [to] be moved without distortion to another site,’ such that at ‘centres of calculation such mobile representations can be accumulated, analysed and iterated in a cascade of subsequent calculations and analyses (Turnbull 2003: 42).’

While I agree with the above, I suggest that ANT’s image of a network, of the ‘coming together’ of heterogeneous entities, however, be replaced with something more like an ecology, formed as living, breathing human beings move ‘along paths that lead around, towards or away from places,’ contending with other humans and non-humans, in their efforts to cultivate knowledge (Ingold 2000: 229). I also like the term ecology here as a reminder that while the natural sciences often rely on laboratizing the world, zones set off from the world in order (according to their own truth conditions) to study it more accurately, these are always part of the world. Every solvent, every measurement, every electricity-hungry machine, every rand and cent that is spent, involves scientific practice in ecological flows that go beyond the immediate zone of practice and investigation.

Whatever the specific terminology used, I hold to a constructivist approach here as opposed to social constructionist ones because the associations that go into the production of scientific facts cannot be limited to human meaning and symbols (e.g. as in Lyotard 1984), for the reason that the roles of non-human ‘actants’ – including molecular compounds - are taken into account. Each ‘fact’ then depends on – and cannot be established outside of - this aligned, distributed ecology of natural-cultural associations.

This means that science constantly produces more and more ‘hybrids’ that cross-cut, and intermingle elements that previously would have been labelled natural or cultural, matter or mind. In place of ‘facts’, Latour proposes the term ‘factish’, in recognition of the existence of these phenomena somewhere between the made fetishes of human invention, and facts that precede and pre-exist any

human intervention in the world. Crucially, it is not that an experimenter such as Nicola simply imposes her own socially constructed representations on a mute world, but that the phenomenon in question, via a chain of reference, has been enrolled in such a way as it might endorse the experimenter's claims (Latour 2010, Stengers 2000).

Reflecting briefly from this theoretical perspective on Nicola's experimental practices so far, we can see that, even before Nicola had begun chemically isolating and determining compounds, her path toward which compounds these would be, had been augmented both temporarily and spatially by her social-professional contacts at UCT, a serendipitous study context, state bureaucracy, the financial cost of her work, the possibility of rapid travel thanks to the N7 road and a car, the lifecycles and growth patterns of Paulshoek's plants, the work of students at Stellenbosch University, the physical propensities of different plants, and even a pesky little fungus!

What were once living plants in the *veld* had become, through a series of translations, dried specimens in the Bolus Herbarium and ethanolic plant slurries sitting in refrigerators in the laboratories of the University of Cape Town. They are tied together as coming from the living plants of Paulshoek *veld* by a complex of notations and photographs in Nicola's records. What passes across these translations is clearly not the plant as constituted by and constitutive of the Namaqualand *veld* ecology. Rather, crucial aspects are conserved across these translations that make them viable contributors to Nicola's next stage of work: that is, samples that preserve the bioactivity of molecular compounds that she can attempt to isolate. This requires refrigeration, storage, transport links, and all the rest of it. Thus, while in one sense Nicola's plants were removed from the complex Namaqualand ecology, *en route* - potentially - towards isolating single, rarefied, compounds, the instant they were picked in the *veld*, they were enmeshed in to another ecology, this time of humans, practices, equipment, machines, buildings, and government bureaucracy and politics. Without this ecology, Nicola's all important ethanolic slurries could not subsist in ways useful to her experimental intentions, could not have been assayed to useful effect, and she could not have returned to Namaqualand knowing precisely what plants she would collect for further analysis.

Back to Namaqualand, back to UCT laboratories in search of 'factish' compounds

The five species Nicola eventually settled on were *Crassula brevifolia* (with no known local medicinal use); *Crassula muscosa* (*hoendervoet* [chicken foot], *volstruistoon* [ostrich toe], used locally to treat a range of ailments in children); *Polymita albiflora* (*muisoor* [mouse ear, owing to the appearance of the leaves], used locally to treat stomach pain); *Zygophyllum foetidum* (with no known local medicinal use); and *Cotyledon cuneata* (with no known local medicinal use) (Wheat 2013). Once Nicola had

brought several kilograms of her chosen plant samples to the organic chemistry laboratories at UCT, she would again wash and macerate them. This time, owing to the large quantities, she used a mechanized blender, and again preserved them in ethanol. She then had to begin the lengthy, frustrating process of drying kilograms' worth of ethanolic plant slurry down to powders. First, this was done by gently heating them in a vacuum to remove the ethanol (Wheat 2013). Then, using 'lyophiliser' machines that could process – at most - 500ml of material per week, liquid in the plant material itself was removed. These powders might amount to less than 1% by mass of the original mass of plant material transported from Namaqualand.

At long last, with these precious powders at her disposal, Nicola now had something stable enough and relatively simple enough to begin searching for, identifying and determining bioactive compounds in her Namaqualand plants (see fig. 16). I lack the space and the technical knowledge to discuss in full all the techniques Nicola used to do this. I can, however, outline the three techniques used in her work in such a way that these should help illustrate key aspects of Nicola's process, and point to the intricate play of physical forces and relations, equipment and concepts through which Nicola was able to describe and understand molecular structures and bioactivity of her Kamiesberg plants. These are (1) bioassay-guided fractionation, (2) LC-MS, and (3) NMR – all three of these being very commonly used techniques of analysis in organic chemistry. If up until this point in her work, the kinds of compounds in Nicola's plant samples were suggested, their presence measured, by their activity in the GIBEX and MIC assays, these would increasingly become known by measurements taken of other aspects of their lively existence: that is, of their mass, charge and responsiveness to magnetic fields.



Figure 16. Nicola's powder from lyophilized *C. brevifolia* (CB) extract. On the left are various, differently coloured fractions separated from from this powder, using bioassay-guided fractionation (discussed immediately below).

Bioassay-guided fractionation

One of the motivations for Nicola has been to make her work useful and relevant to chemists working in other African universities, on similar kinds of plants, but who may well not have access to extremely expensive techniques such as LC-MS and NMR. Thus, alongside these newer sophisticated methods, she has used much older, cheaper, more readily available fractionation techniques to physically separate her plant extracts, with the ultimate aim of isolating individual, bioactive compounds. Because of time constraints, only *C. Brevifolia* was analysed in this way. Any given plant can contain literally thousands of different molecular compounds and these techniques attempt to separate the original whole plant extract into different, and increasingly simple (in terms of molecular composition) fractions, with the aim of reaching a fraction composed of only one compound. One such technique she used was open-top gravity column chromatography. Simply, in the version of one of the techniques she employed, a long, glass tube, is packed with silica granules and a small amount of liquid solvent. A mixture of solvent and plant powder is allowed to seep slowly through from the top of this 'column' (as it is called) to the bottom.

Since different kinds of compounds with differing polarities move through the column at different rates, a temporal separation of compounds occurs – witnessed, in this instance, by liquids of varying colours moving down the column. Using a tap at the bottom of the column, these different coloured liquids – the fractions - can be caught at the bottom of the column and subsequently tested for bioactivity. A *polar* compound is one where 'one part of the molecule has a positive charge and the other a negative charge' (Daintith and Martin 2010: 644). Polar compounds will tend, because of this charge, to temporarily 'stick' to the polar silica molecules in the column and thus move more slowly through the column. The real skill here requires figuring out which polarity of solvent results in the best 'spread' of different coloured compounds. A poor spread means the compounds are 'bunched together' and little separation occurs – and thus one moves no closer to isolating the compound effecting useful biological activity.

With no existing literature on the plants she was working with, and no one doing similar work in her laboratory to refer to, this amounted to a trial and error process as Nicola mixed more or less polar solvents with her plant extracts and fractions, took note of these, and compared these with the resultant spreads. Nevertheless, Nicola was not totally alone in this – through accessing the internet, library and textbooks, she had access to literature from back to the 1960s documenting results from the use of similar techniques which informed her approach to the trial and error process. In turn, she hopes the publication of her own results and techniques, recorded and advanced through her own localised ingenuity and skill, could offer students at less well-resourced institutions 'at least a place

to start' when working on similar kinds of plants. Though distant in time and space, Nicola could understand and apply - via mobile representations – those 1960s experiments to her own experiment, just as she hopes students distant in time and space will be able to make use of her work. But this is not because any one of those involved had direct, perfect access to nature. Rather, with the aid of previously disseminated molecular theory, they each would be able to establish equivalent conditions of experimental technique, in order that comparable materials could be made subject to comparable tests.

The time-consuming processes of bioassay-guided fractionation ask the investigator to 'hunt' the bioactivity in each fraction and from there hopefully to the single compound responsible for the bioactivity. This can then be investigated using LC-MS or NMR in an attempt to identify the compound itself, and to elucidate its molecular structure. At other times, frustratingly, the bioactivity might simply disappear at one stage of fractionation, suggesting that the bioactivity was actually the result of synergistic effects between two or more compounds in the plant (Engelbertz et al. 2012). In Nicola's case, her hunt was taken forward by placing small amounts of her (gravity-column derived) bioactive fractions on to thin layer chromatography (TLC) plates to try and identify how many components were in these fractions.

The kind of TLC plates Nicola used consisted of aluminium foil coated with a very thin layer of silica. Coming out of the package looking like a sheet of A5 paper, these she carefully cut (using scissors), into small, tapered sections (see fig 17). Nicola pipetted a small amount of the fractions in question on to the TLC plates and submerged 1mm or so of the tapered ends in a solvent mixture. As the solvent wicks up the absorbent silica layer, it passes through the fraction and draws the fraction with it. Since each different compound will be drawn differing distances up the plate, this results in different coloured spots emerging on the plate, each spot indicative of a different compound. This can clearly be seen in fig 17. These spots can then again be tested for bioactivity. Given a positive result for bioactivity, and through keeping meticulous record of which plant powder,

with which solvent, results in which fraction; and then which fraction results in which TLC compound spot, one can identify where the single compound came from and (it is hoped) be able to reliably, and

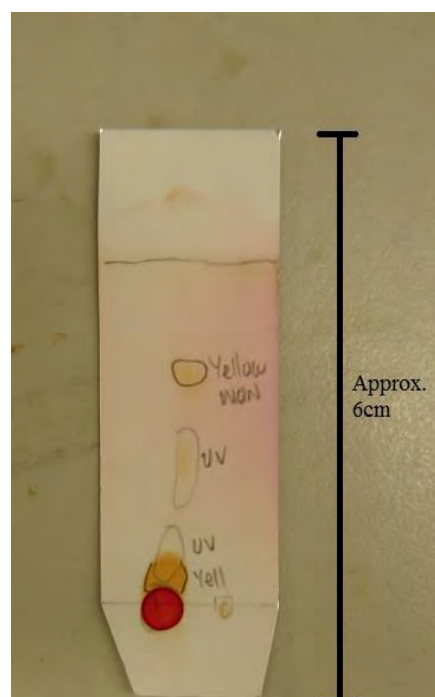


Figure 17. A TLC plate.

repeatably, separate out this compound with this bioactivity using this particular pathway of analysis. Nicola was unable to conclusively do so using this particular technique.

These kinds of older, easier and overall cheaper techniques of bioassay-guided fractionation are nevertheless extremely wasteful of solvents, silica, plant matter and time – a single column taking perhaps six hours to run, and requiring grams of powdered, extracted plant matter from kilograms of actual plants, and litres of solvent. In addition, every time an extract or fraction is run through a column, some part of it is lost, absorbed in the solvent matrix, leading often to inaccuracies in testing. Bioactivity guided fractionation aims, by its very nature, to increasingly separate and simplify plant samples, with a singular bioactive compound being the aim. This is not so in NMR and LC-MS that can identify molecular formulae and structures for thousands of compounds found in plants and which work a lot faster, using tiny fractions of the amount of plant material and solvent.

Nuclear Magnetic Resonance (NMR)

NMR is one of the most important and powerful techniques used by organic chemists for elucidating molecular structures of organic compounds (Pavia et al. 2015), with newer applications of NMR explored by Nicola able in principle to detect several hundred compounds in any one sample (Wheat 2013). Very simply, at the heart of the NMR is an extremely powerful, super-cooled magnet that is able to offer insights into the structure of molecules according to a fine interplay of energy and forces that pass through the nuclei of particular kinds of atoms. Protons and neutrons can be imagined as spinning around an axis, where this spin gives them a 'magnetic moment' a positive and negative 'end', a bit like a bar magnet. Since spin states in a nucleus are paired against each other (i.e. they exist in spinning pairs that are opposite to one another in axial orientation) where there is an even number of nucleons in a nucleus, these pairs cancel one another out so that there is no net spin on the nucleus. Such atoms' nuclear 'magnetic moment' is zero since they will not experience any torque, or turning force when exposed to a magnetic field. These atoms, unsurprisingly, are not useful for analytical techniques, such as NMR, that rely on responsiveness to magnetic fields. Atoms with *odd* numbers of nucleons, however, have net spin - a phenomenon of central importance to NMR. One such atom is the hydrogen atom, composed of just one proton and a single electron and written ^1H . NMR that records the responses to magnetic fields and radio waves of hydrogen atoms in the molecules being analysed is known as ^1H NMR – one of those employed by Nicola in her work (Pavia et al. 2015, Wheat 2013).

A plant sample, dissolved in solvent, is lowered into the NMR machine, in close proximity with, and surrounded by, the strong magnet. The magnetic field causes the spin of the protons in the hydrogen

to be held in line with the magnetic field, either *with* or *against* the magnetic field. That is, a bit like the needle in a compass when exposed to a magnetic field. Those that are aligned with the field are at a slightly lower energetic state than those that align against the field, with the gap corresponding to the energy of radio waves. If those protons at the lower energy state receive the right amount of energy in the form of radio waves, at the right frequency, they ‘flip’ so that their spin is aligned *against* the magnetic field. That is, they move to a *higher* energy state. This energy source is provided by a radio wave transmitter in the NMR that ‘blasts’ the sample at a *constant* frequency within a range known to resonate with hydrogen protons. When ‘flipped’ protons return to their lower energy state (i.e. spin once again in line with the magnetic field), energy is released in the form of radio waves, picked up by a receiver in the NMR machine. This flipping back and forth is known as ‘resonance’, and the signals so released can be read so as to glean vital information about their originating protons, about the molecules they are attached to, and about the structure of those molecules themselves: the proton’s ‘molecular environment’, as it is referred to (Pavia *et al.* 2015).

These signals can be resolved via computer-assisted equation into the frequencies that compose them and visualised as a graph known as a spectrum. Fig 18, also seen on the front cover of this thesis, and reproduced from Nicola’s PhD thesis, shows spectra Nicola obtained for all five of the species she identified for further analysis. These complex spectra, or ‘fingerprints’ that offer signals from the protons in many of the compounds from in each plant can, even by visual observation of peak position, shape, and size, give clues to the kinds of compounds found therein (Pavia *et al.* 2015).

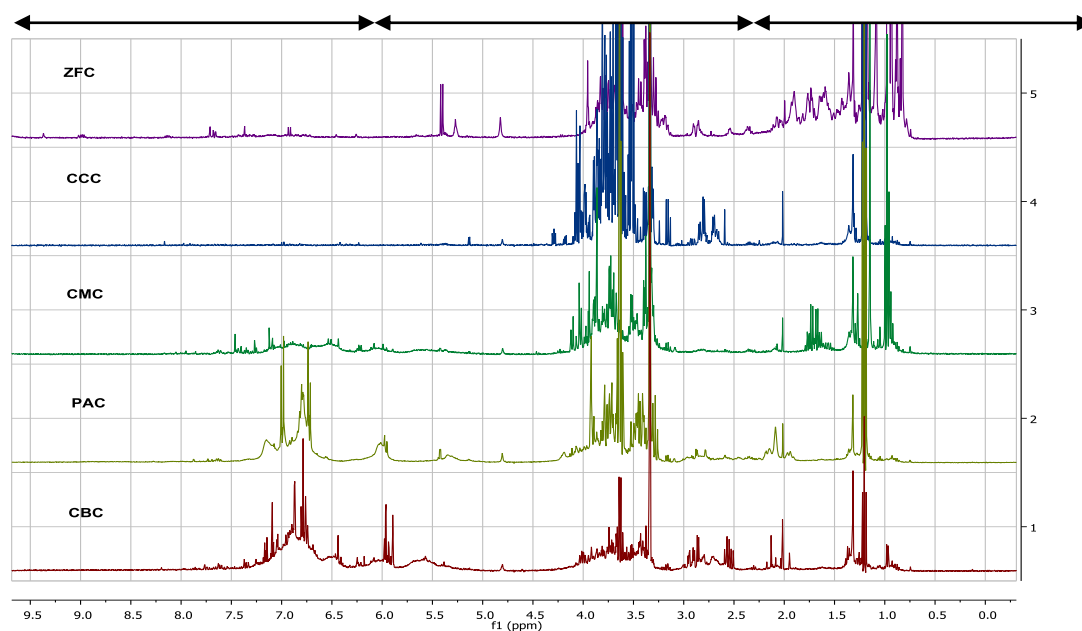


Figure 18. Reproduced from Wheat 2013: 170. All ^1H NMR spectra are stacked to show commonalities and differences between species (CBC = *C. brevifolia*, PAC = *P. albiflora*, CCC = *C. cuneata*, CMC = *C. muscosa*. ZFC = *Z. foetidum*).

Peak position in the above spectra is indicative of the kinds of atoms each hydrogen atom is attached to. This is because the strength of the magnetic field in the NMR is not a constant, and is actually raised and lowered to 'sweep' the sample. Different hydrogen protons, at different positions on different molecules, will be affected – i.e. 'lined up', as described above - by different strengths of magnetic field. This is because the protons are relatively 'shielded' from the magnetic field by the electron cloud that surrounds them. Those protons attached to atoms which are highly electronegative – that is, they attract electrons strongly towards them – pull hydrogen atoms closely to them, leaving the hydrogen proton exposed to the magnetic field. Such hydrogen atoms, which you would expect to be affected by a relatively *low* strength of magnetic field, resonate at those levels also, and so can be found further to the *right* (i.e. towards 0) of the x-axis. The area under peaks is suggestive of the number of protons found in that position on the molecules found in the sample (Pavia et al. 2015). Using other forms of NMR, computational analysis, and in combination with bioassay-guided fractionation and LC-MS (see below), Nicola was able to identify and determine the molecular structures of many of the compounds in her plant samples.

Liquid chromatography–mass spectrometry (LC-MS)

The LC part of the LC-MS process refers to a technique very much like a miniaturized, mechanized, and more expensive version of the open-top gravity column chromatography described above. It is possible with these machines to mechanically control the polarity of solvents mixed with plant extract, and to set the exact parameters by which it selects when different fractions should be collected at the end of the column. Because different kinds of compounds take more or less time to run through the column, this narrows down the kinds of compounds one would expect to find in that fraction. Run under high pressure, columns such as these can take as little as twenty minutes to run (Wheat, personal interview 2012, November 20). In her work, Nicola used a Waters Ultra Performance Liquid Chromatography (UPLC) machine coupled with a Waters Synapt G2 mass spectrometer (MS), this latter machine allowing her to analyze the fractions produced by the UPLC.

Again, very simply, the extremely expensive and sophisticated Waters Synapt G2 (running into millions of rands to buy, run and maintain) works according to the principle that ions in extracted plant samples will be more or less affected by a magnetic field according to their mass to charge ratio. Fractions from the LC stage of the process enters the LC-MS machine, are vaporized and *ionized*: an ion being an atom where the number of electrons does not equal the number of protons, so that the sample becomes positively or negatively charged (fig 19). An electric field accelerates the ionized sample toward a tangentially aligned magnetic field which deflects the ionized sample's trajectory relative to the mass to charge ratio of each ion.

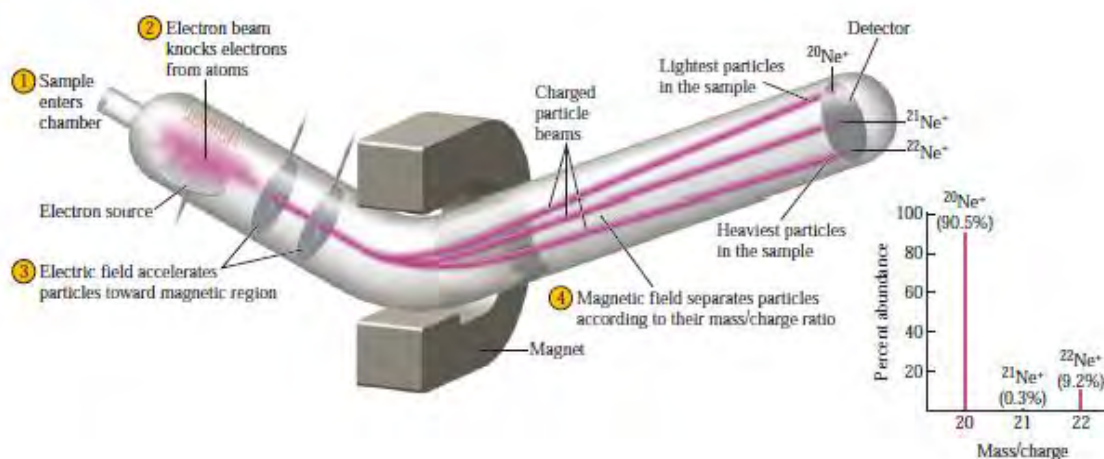


Figure 19. Inside a mass spectrometer, reproduced from Bauer, Birk & Marks 2007: 68.

The trajectories of ions with higher masses will be less deflected than those with lower masses so that when they pass through a detector placed to the far end of their trajectory, their movements and relative positions speak of their respective masses. Since the mass of molecules is determined by the different, and precisely known, masses of its constituting atoms, this in turn offers insights into the molecular make-up of the sample. The LC-MS is a highly sensitive instrument, more so than NMR, able to detect thousands of compounds in any one sample. Nicola's own in-depth knowledge of chemical theory, combined with feeding this data through software analysis, and comparing it with data banks detailing relationships between mass and molecular formulae and structures of tens of thousands of known compounds, allowed her to deduce many of the molecular masses and likely molecular formulae of the compounds in her samples. For example, mass spectrometry for *C. brevifolia* showed that a compound with a mass of 290.0836 was second most abundant in the ethanolic extract of this plant. Comparing with data available at MassBank, an online "Mass Spectral Database", Nicola was able to tentatively suggest that this was the compound Catechin, with the molecular formula of $\text{C}_{15}\text{H}_{14}\text{O}_6$ (MassBank, n.d.; Wheat 2013: 145). In combination with NMR, as she was able to do with many other compounds, Nicola (Wheat 2013: 138) was able to determine the structure of this, as shown in fig 20. Catechin is known to show antibacterial, antioxidant, and mild antifungal activity (Díaz-Gómez et al., 2013; Brown et al., 2009; Tombola et al., 2003; Tamura and Ochiai, 2012; Geetha et al., 2004). As Nicola notes, this impressive little compound has also been shown to reduce

... cardiovascular and cancer risk (Mittal et al., 2004) and protects against neurodegenerative diseases like Parkinson's and Alzheimer's diseases (Teixeira et al., 2013; Smith et al., 2010; Berletch et al., 2008). Semi-synthetic catechin derivatives have

also been shown to inhibit strains of human influenza, including H9N2 “bird flu” for which there is currently no treatment (Song et al., 2007). (Wheat 2013: 153)

Nicola suggests *C.brevifolia* should therefore be investigated further for its therapeutic efficacy and possibilities for compound synthesis for the development of novel pharmaceuticals (Wheat 2013). Since Catechin was present in her *C.brevifolia* extract, she suggested that it may have been responsible for the observed bioactivity of crude *C.brevifolia* extract in GIBEX and MIC assays (described above) – one example among many of how Nicola was able to advance knowledge about the medicinal potential of Namaqualand plants using a combination of sophisticated and not so sophisticated techniques of chemical analysis.

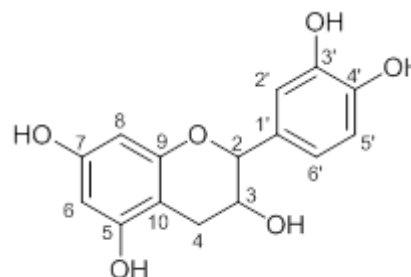


Figure 20. The molecular structure of catechin, as determined by Nicola. Reproduced from Wheat 2013: 138.

The exceptional feat of Nicola’s experimental techniques

How might plants ‘done’ by kruiedokters and molecular biologists be understood and described in ways that rely neither on relativism, nor on one kind of reality trumping all others? In attempting to relate the above accounts of Nicola’s work to this key question raised in the introduction to this thesis, it is important, for accuracy’s sake, to not underestimate the great efficacy and novelty of the experimental approach that lies at the heart of modern science, and indeed of Nicola’s work. This, as Isabelle Stengers writes in *The Invention of Modern Science* (2000: 88), is ‘the invention of the power to confer on things the power of conferring on the experimenter the power to speak in their name.’ Indeed, I would stress, alongside Stengers, the – quite literally – *exceptional* nature of working in the world in such a way as to make experimental results repeatable. For only once this is the case can it be said that an ‘experimental device has achieved the practical high feat of having the phenomenon make a difference such that it forces any competent, interested person to bow down and agree’ (Stengers 2011: 376). Even when viewed as a collection of chemicals, it is known that the composition of any plant changes continuously in response to environmental conditions, some of which are known to botanists and ecologists, some of which are not (Hilgart, personal interview 2011, February 23). The ability to isolate, make controllable, and determine the chemical structure of single compounds in amongst tens of thousands (Wheat, personal interview 2012, August 3) composing the dynamic

complex ecology of a single plant, is the exceptional feat of the scientific experimental approach adopted by Nicola.

Importantly, and as mentioned above, I want to emphasise that it is not that Nicola has *imposed* her own socially constructed representations, but that molecules, and their lively atomic and sub-atomic propensities, have been enrolled in such a way as they might endorse her claims (Stengers 2000). It was not a 'social construction' that killed the little worms in Nicola's GIBEX assay; or caused the open top gravity chromatography column to separate dissolved plant powders into different coloured fractions, with different kinds of bioactivity; or that makes it possible for the LC-MS and NMR to consistently produce data and spectra that can be used to determine molecular structure, and for this knowledge to be used to produce pharmaceuticals that affect human cellular functioning, or rid our bodies of infecting worms, bacteria and viruses. There is no doubt that Nicola's techniques and theories offer concrete and practical ways of intervening in and working with forces, relations, and things of the world.

The point, however, *is* to not overestimate the scientific experimental approach – which, like any other way of knowing - renders to itself certain kinds of phenomena as relevant and others not. So, Nicola's project was guided by a particular conception of health and illness where ill-health is caused by the presence of toxic bacteria, viruses, fungi, cellular oxidation, or parasitic worms in the human biological system. As we saw in Charlie's case, however, and as we will see in later chapters, there are other kinds of, quite different, social-spiritual toxicities for which plants and other techniques can be used as remedy.

In Nicola's work, from first identifying and removing plants from the Kamiesberg *veld*; through mashing, drying and suspending them in ethanol; to GIBEX and MIC bio-assays, to the analysis of extracts by LC-MS or NMR; to the data and graphs generated by the software that interprets and resolves the LC-MS and NMR outputs, something must persist across these differing material forms, a 'chain of reference,' from the *veld* to the PhD she goes on to write on the subject, and beyond. But that something is, again, not the plant itself but rather concatenations, 'hybrids' of: the plant taken in particular aspects of its being, the measuring tools it comes into contact with, the ecology of things and practices on which these processes rely. This ecology includes sets of historically established mathematical signs, images, symbols, models and concepts which refer to and hold as thinkable aspects of the plants as 'bioactivity', 'mass', 'molecules', 'charge', 'polarity': maps, of sorts, which are able to afford reliable footholds in the world. No matter how complex and accurate these maps or models become, they cannot become the same as the world – they must, again – exemplify certain aspects of the phenomena they point to, and exclude others because otherwise they would no

longer be of any use as maps, as models (Elgin 2009). A map which mirrors perfectly in every detail the thing it corresponds to ceases to have any analytical value because it would to all intents and purposes *be* the thing one wants to navigate and understand. Moreover, even if technology were to advance to the point where every single atom, every single molecule, and additive and synergistic effect, in dynamic relation to the molecular life of the human body, could be accurately mapped, modelled and predicted, there would remain connectivities, dimensions, aspects to plants that these maps and models could not account for. As explored in following chapters, these would include the political-historical-ecological-social-conceptual contexts in which the relational entity plant-plus-human emerges.

The mistake of much dominant Western metaphysics, since Gallileo's and Descartes' immensely productive move of (philosophically) dividing the world into universal matter and mind, primary and secondary qualities, has been to take the many successes of modern science, approaching the world in these particular measurable aspects of its existence affording *particular kinds* of footholds in the world, as *proof* of matter or the physical as a *transcendental* plain of existence that can explain all observable phenomena (Stengers 2010). That is, to confuse the map, established by a particular kind of social-economic-ecological system, necessarily with its own ontological commitments and interests, with the *territory* of being itself. One destructive consequence has been, as we saw in chapter one, that in their encounters with those beyond the borders of (what they themselves defined as) 'modernity', thinkers and researchers have denigrated, deformed, and more latterly tolerated phenomena that did not fit into a 'bifurcated' or 'mattered' world. If, however, what is conceptualized as matter is itself a 'factish' produced through the work of the natural-cultural collective referred to as modernity, then this cannot be taken as an *a priori* zone of existence against which, for example, Tylor was able to contrast the 'primitives' 'failed science,' Levy-Bruhl the (ultimately) false collective representations of primitives, Sartre's magic of the emotions, or more generally the magical 'beliefs' or 'superstitions' of protagonists in many an ethnography.

This shift of attention allows for the possibility that there may be other factishes, like 'matter' simultaneously both inventions and enrolments of realities beyond human provenance, perhaps associated with so-called 'magical' practices, that likewise enable other collectives *other kinds* of reliable footholds in reality. A word of caution, however: after reading an earlier iteration of this chapter, David (Gammon²⁴) voiced his concern that this perspective verges off in to postmodernism, of a relativism of world-making discourse and plays of symbols. A relativism whereby everything people say exists, and exists to the same extent, in the same way, making any claim as equally valid as

²⁴ The UCT-based organic chemist whom we met in the introduction and who co-supervised this thesis.

any other. This is an important concern and my response is to emphasize that different kinds of factishes do not necessarily exist in the same way, and are not all equally useful and valid in every situation, or to answer every question: one has to know what one is addressing and in what sense it can be known and engaged with. It is here that Latour's recent work *An Inquiry into Modes of Existence* (AIME) offers nourishing food for thought.

A modes of existence perspective

In AIME, Latour sets out to identify and define, and then outline the 'crossings' between, what he refers to as the modes of existence that those formerly considered modern *actually value in their day to day lives* – this being quite different, he argues, from what dominant common sense or philosophy normally claim, i.e. that there are only one (matter, pure physicality) or two (mind and matter, pure physicality) modes. In all, he identifies fifteen different modes, including: reproduction, or the world as 'it' has, does, and will persist before, during, and after human knowledge of it; technology; fiction (how and where do our favourite fictional characters exist, exactly?); reference (see below); politics; law; and religion (see also below). This opens up a more accurate anthropology of 'the moderns', he argues, and simultaneously offers a better chance for a kind of ontological diplomacy between the moderns and 'the others'. A clearer vision of what 'we' value, may, he hopes, offer a better understanding of the similarities and differences between 'them' and 'us'. We might in many cases prove to value and recognise comparable modes of existence where common sense and philosophy might have suggested otherwise. In others, the differences might, through this process of clarification, become more stark, but at least we would know where the differences lie, and know better the terms of our disagreements.

Thinking and writing in terms of modes of existence can quickly (appear to at least) descend into high abstraction and esotericism. Yet, at the heart of Latour's arguments are two quite simple insights. **Firstly**, that objective knowledge is not the only form of knowledge upon which human life depends in order to thrive. Even if we could achieve the impossible and be certain that we had established a total physics, a perfect theoretical memesis of the physical world, this theory would only offer limited insight into many aspects of human (and non-human) life. What could it tell us, for example, about the significance of religious experience in people's lives, or of the form religious symbols and beings take? What of human intentionality, a surely causative force in a world transformed by human presence? Or of the many relationally constituted beings that Ashforth insists plague the lives of many 'spiritually vulnerable' South Africans? (Ashforth 2005, 2010). Perhaps more prosaically, 'no physics theory' as George Ellis has pointed out, 'is able to explain a teapot' (Ellis 2005: 743) – in other words,

there are levels of organizational complexity, irreducible to pure physicality, that nevertheless exist and play crucial roles in our every day lives, and the world in general.

Latour's **second** insight is that it makes little sense to view human inventions such as law, religion, fiction or politics as somehow outside of the world, epiphenomena to the real business of existence that carries on at the level of matter. Rather, these inventions are immanent in the world, they are part of it like anything else, although they exist in their own ways, their own modes that physical theory simply cannot describe or gain a foothold in.

Each mode, he suggests, has its own particular *tonality*, and in order to speak well about something existing in this tonality, it is necessary to find the right interpretative key. This implies certain felicity – or truth - conditions that must “be met for someone to speak truths or untruths ... specified according to its mode” (2013:56). So, although, as we saw above, Nicola's plants undergo a series of translations, what remains, what passes across each translation is verifiable evidence that each translation nevertheless refers back to the plant species Nicola first collected in the *veld* in and around Paulshoek: that these are the same pressed and preserved plant species that sit in the Bolus Herbarium at UCT. Latour refers to this mode of existence as *reference* that, as with the experimental techniques of the natural sciences in general, has as its tonality the aim of the production of *objectivized* knowledge. That is, again, chains of reference that can be followed reliably and repeatedly back to a measurable and recordable object in the world.

What counts as truth in law as “beyond reasonable doubt” is not the same as what counts as truth in reference, or in religion. In the latter, he argues, truth is properly measured in the ability of the words that religion speaks, and the beings these appeal to, to *refresh* us. It would be pointless, by this account, to try and find measurable evidence for God in the sense that reference would seek, a ‘God particle’, perhaps – a category mistake that misses the proper interpretive key and so would be able to say very little of worth about experiences and beings of the religious mode of existence (European Organization for Nuclear Research [CERN] 2015). Vice versa, it makes little sense to try and uncover the structure of bioactive molecules in a plant through the use of religious language and practice. Because of this quality of irreducibility, reference, or any other mode for that matter, cannot be said to undergird or undermine, any other: all are rather interwoven with, and dependent upon, the others.

Latour is certainly not the first author to have challenged the absolute authority and transcendent nature of objective truth, or to have suggested that there is more than one form of truth. Beyond the post-modern, post-structuralist philosophies already discussed, William James – a great influence on

Latour's thought - wrote more than a century ago on the plurality of truth. In *Pragmatism and the meaning of truth*, James argues that a true belief is one that is useful in some way – and that there are *many ways* in which such beliefs can be useful (James [1907] 2010). Elsewhere Nietzsche insisted similarly on a pragmatic understanding of truth where absolute truth is impossible and where, rather, 'the value for life is decisive.' (1972:17). Thomas Kuhn argued that scientific truth could only be established within scientific paradigms and the assumptions, theories, knowledge, and techniques of measurement prevailing at the time (Kuhn [1962] 1996). Latour's modes of existence are very much like Whitehead's 'prehensions' ([1927-28] 2010), and the term 'modes of existence' itself is seen in Deleuze and Guattari's *What is philosophy?* (1994:113). In wider contexts, Holbraad's ethnographic work, as we saw in chapter one, points to the breadth of possible forms that the concept of truth can take.

What AIME contributes to long running debates around truth and the existences posited by claims to truth, is to emphasise not only on the human experience or awareness of different modes of existence, but also on the extended networks (I call them ecologies) of things in relationship through which and in which those modes subsist. This is an expansion, in multiple dimensions of being, of his earlier ANT work. Each mode of existence 'circulates' within particular *kinds* of network, where the connections established by such networks are key to the modes of existence that can circulate within them. Law – intangible though it itself might be - circulates within a tangible network of lawyers, judges, plaintiffs, courts, legal documents and procedures. Religion, similarly, circulates within networks of religious texts, practices, buildings, imagery; whilst reference circulates around networks of scientific practitioners, instruments, academic papers, and so on. This makes clear that beings of fiction, religion, reference and so on cannot be said, accurately, to exist only within in the confines of the 'mind' because these natural-cultural networks, or ecologies, are necessary for their continued subsistence in the forms they take in our lives.

AIME is certainly not perfect, however. While Latour's account of reference is based on years of pioneering studies of scientific practice, his description of the religious mode, for example, is undeniably quite simplistic and overly determined by his own Catholicism. And even though his is an effort to do away with the notion of modernity as commonly understood, his writing does not entirely distance itself from the sense that there is somehow an 'us' and a 'them'. This can sit quite awkwardly with the pluralistic and globalized contexts anthropologists actually work in. Similarly, there is generally a neat precision to his metaphysics that is perhaps at odds with the often messy incoherence of the world – a point recently raised by philosopher Terence Blake (Blake 2014). Yet it would be unreasonable to require any account of reality to be perfectly coherent and comprehensive. In any

case, Latour recognises it as an ongoing project that would necessarily change in response to empirical studies of different modes. Moreover, such limitations do not detract from the worth of the question that Latour's proposition clears space for us to ask: are there modes of existence, not well understood through the terms of nature or culture, mind or matter, but which have existence through the ecologies that sustain them, and which play important roles in the work and lives of *kruiedokters* and their patients? In answering this question in the affirmative, in the following chapter I explore the vital concept of *krag*, which can be translated as vitality/strength/power and the ecologies of relations through which it subsists.

3.

Cultivating *krag*²⁵, refreshing *gees*²⁶: thinking ecologies of (un)wellbeing

It was August 2010, very early on in my research process. In an attempt to assuage the loneliness that often accompanies early days in ‘the field’, I had established an evening ritual of dinner cooked on the little gas stove in the house in which I was staying (alone) and eaten in front of an episode of ‘Dexter’, followed by writing notes for the day and finally reading at least a chapter from a selection of the works of my favourite anthropologists.

Five days into fieldwork, my neighbour Hansie²⁷ – a young man of 31 – hanged himself. He had used the pole to the washing line in his girlfriend’s garden and by morning the weight of his body had pulled him towards the earth so that rather than hanging, he was standing, knees slightly bent, looking at first glance like a living person casually leaning and pondering the world. The image haunted me. It still does. Local children warned me that Hansie’s ghost might trouble someone like me, living all alone.

In the daytime, amongst those I was getting to know, I felt confident that I did not believe in ghosts. Alone in the cold, dark winter evenings (when temperatures regularly fall below zero), the mountain wind whipping at the corrugated iron roof of my unheated house, I was less confident; hundreds of kilometres from anyone I could call a friend and knowing that the *smokkelhuis* (informal drinking place) 20 metres from my house was the site of regular fights often involving knives, the presence of malignant and unseen forces was harder to deny. It was on evenings such as these that I felt particularly comforted by the cleansing, sweet smoke of the *Hottentots kooigoed* plant I burnt around the house. This I did because during previous research experiences and conversations in Paulshoek I had heard that such smoke would protect me from dangerous ghosts that roam the *veld* and village

25 *Krag* can be translated as power, strength, vitality and/or vigour.

26 *Gees* can be translated as spirit.

27 A pseudonym.

at night. Beyond its immediate effect on my senses, the smoke evoked memories of the beautiful *fynbos*-covered mountains from which I had picked the plants, and the friendly ‘uncles’ who had shown me where to find the pale grey herb.

One evening, two days after the suicide, reading Michael Jackson’s *Existential Anthropology* (2005), I became entranced by the itinerant anthropologist’s deep insights into the human condition. Drawing on James Gibson’s notion of ‘affordances’ and Jean-Paul Sartre’s of ‘exigencies’, together with Maurice Merleau-Ponty’s phenomenology of ‘continual birth’, Jackson paints a picture of human life that is never settled, always at the moment of becoming as each person is presented with the myriad possibilities that the world offers up for the pursuance of a viable and meaningful life. ‘Selecting’ which path one will take at any instant is, for Jackson, less often a question of rational deliberation than it is a more or less intuitive movement wrought by history, culture and environmental and economic conditions (Jackson 2005: xiv-xv). This is a fluid world in which ‘action acts upon beings who are capable of their own actions’, and so, ‘reaction, apart from being a response, is always a new action that strikes out on its own and affects others’ (Hannah Arendt [1958:190] quoted in Jackson 2005:1).

As Tim Ingold points out, this mutual laying down of the conditions of life is not limited to the human realm, somehow cut off at the feet from the world which, in the end, *makes human life possible* (Ingold 2011: 8). Local *vee* (sheep and goat) owners and *veewagters* (shepherds) strive to do their best to create favourable conditions for the growth of their animals. At the same time, however, the *vee*, and the multitude of flows, substances, materials and organisms which constitute local ecosystems, require certain ways of being and doing of those humans interested in cultivating the lives of *vee* as companions, meat, milk and money. A *veewagter*, working with animals in an area known for jackal attacks, for example, cannot simply do as he²⁸ wishes and let the animals roam free. Neither can he simply march his flock to where he would like them to be. He must allow them to ‘*waai*’ (wander) in order that they may find and eat enough food in the day, whilst keeping in mind where they are, attentive always to potential dangers. And so humans and non-humans continually create the conditions of existence in a dynamic ecology which is never exactly the same from one moment to the next²⁹ (Ingold 2011:8).

Riding (whilst simultaneously contributing to) this wave into the perpetually new, ‘one’s sense of wellbeing is susceptible to constant change,’ writes Jackson, ‘... an affectionate glance, a gesture of recognition or concern, the company of close friends, or an unexpected gift can make one’s day, while

28 For in the majority, they *are* men.

29 See also Haraway (2008), and Mien & Law (2010) on domestication as more than a simple enforcement of human mastery.

a cutting remark, a snub, ill-health, or the loss of a job, or a falling out with a friend can cast a pall over everything' (Jackson 2005:x). To this one might add, for example, the death of a lamb or the illness of one's favourite dog. Jackson's words struck home because this *was precisely why* I was engaging in those daily rituals of food, entertainment, and cleansing, and was, on reflection, true for my life in general. It is a point so obvious, so close to the everyday experience of life that I had failed to adequately consider it in my work up to that point. Following the dropping of that penny, it became clear to me that my 'study' would need to take this continual flux in and struggle for wellbeing as the matrix within which would be located *bossiesmedisyne*, whose role I could then attempt to trace and unpack.

Ecologies of (un)wellbeing

Continuing from arguments advanced in the chapter two, it is useful to *think of* this matrix as a kind of ecology. I stress *think of* in recognition of Marilyn Strathern's warning that the sense of ecology I outline here is a *method* of scrutiny and should not be confused with the *subject* of scrutiny (Strathern 1988: 7). In other words, this is a useful fiction, a tool of analysis that I hope enables a clearer understanding of the context in which (my translations of) people's concepts and practices are employed and deployed.

The aim of this chapter is not to *map* such an ecology, to 'lay it out' as some kind of totality, instantly knowable to anyone who cares to read these lines. Such a project would not only require knowledge and skill (e.g. the microbiology of disease) way beyond my ken, it would also take me further into the realm of abstraction, *away* from that which I intend to approach – i.e. the visceral actualities of life without which (un) wellbeing simply cannot be. This chapter recounts a glimpse into the ecology of organisms, practices, ideas, materials and substances within which (un) wellbeing in the Leliefontein communal area subsists. That '(un)' is necessary to point to the fact that for most people I knew and know in the Kamiesberg, wellbeing is an elusive, if not entirely absent state of being to be sought but rarely, if ever, attained.

At the risk of repeating comments made in the previous chapter, I emphasise that the image of an ecology I have in mind here should not be confused with the kinds of networks – of many interconnected, discrete, nodes – described by many a paper claiming affiliation to the work of Latour and ANT (e.g. Contractor, Monge & Leonardi 2011, Pavlovic & Meadows 2012). Relating, for example, God, people, *bossiesmedisyne*, *veld*, alcohol, state welfare, and poison through a series of connecting lines constituting a network of interlinked entities, might tell me something about the situation at hand. It would not, I suggest, say much about the ways in which people *live* and *live with* such entities.

Mirroring my own doubts about ANT (or at least how it is commonly applied), Tim Ingold has pointed out that lines of life do not connect but ‘pass forever amidst and between’ (Ingold 2011: 64) as every action, in the flow of time, traces a line in the world where each life can be understood as a bundle of such lines³⁰. In place of a network of interconnected actors/-ants, he posits a ‘meshwork’ consisting of the intersecting and merging of the lines that trace beings’ movements through, and mutual forming of, the world-in-becoming. Whilst deriving subsistence and form from its dynamic position within a living ecology, each entity simultaneously contributes subsistence and form to the ecology in which it is enmeshed. With the thought of Whitehead, paraphrased by Stengers, one could say that ‘the event is what it is because the object is what it is, and objects are what they are because events are what they are (Stengers 2011: 10).’ Following Stengers, the sense of ecology I employ does not imply any hierarchy of existence or causative role of one kind of mode of existence or object or over others. All that is needed for one part of ecology to affect others is for there to be a relation between them. At the same time, the role of any entity within the ecology is not assumed before the fact: a seemingly insignificant entity could turn out to have wide-reaching impact and significance (Stengers 2010: 24).

The meshwork is a rich, lively and useful image to think with. Yet, if ‘every being is instantiated in the world as a path of movement along a way of life’ (Ingold 2011:4), it is then only through a process of abstraction that paths of life – forming, and being formed by the stuff of the world – can be conceived of and represented as *lines* as such. In the Kamiesberg, where paved roads are few and far between, the intermingling of paths of life is, if you simply look down at your feet, easy to see in living formation. Most of the footpaths which criss-cross Paulshoek have not been laid down in advance by the municipality but have been worn in to the earth itself through innumerable journeys walked as people make their way to the shops, to friends’ houses, to the bar, to the *veld* to collect medicinal plants and firewood, to check on stock animals, and so on. In the soft sandy earth of the *veld*, especially in the river beds, such an intertwining of paths is even more apparent as one’s own ever-lengthening *spoor* (track) mingles with those of donkeys, goats, sheep, jackals, snakes and a myriad other creatures seeking water, food, and shade or simply an easy route through the hilly landscape. These entangle with, amongst other things, the lives of plants and the constant erosion of water and wind (see fig 21).

30 Or what Gilles Deleuze and Félix Guattari termed a *haecceity* (Deleuze & Guattari 2004: 290). I’m not convinced, however, that this rather grand word is of any more use than ‘a bundle’.



Figure 21. An intermingling of 'lines of life' (or, a dry river bed), near Paulshoek.

In navigating the *veld* and following the lives of animals and humans, people pay close attention to *spoor* created through the actions of walking, playing, running, and hunting. Human life is often spoken of as a path, and church sermons regularly remind people of the path-like quality of life, of God as an ever-presence in our lives, His footsteps walking in our own. In an effort to write close to the bone of everyday life I suggest that, at least for the purposes of this thesis, it is unnecessary to make this conceptual shift from paths to lines.

Cultivating *krag*, refreshing *gees*

My attention now suitably attuned, I noticed that people often referred to their '*krag*' (vitality/strength/vigour/power) as something which would wane under the stresses of life, but which they would continually aim to build up and refresh in order to take on the challenges of life once more. Drained of *krag*, one's *gees* (spirit) is weak and listless and one becomes vulnerable to both *Godsiekte* (natural illness) and *toorsiekte*. Indeed one's *krag* and *gees*, both of divine origin, work in close relation in the generation of one's wellbeing. This is the ideal, of course, and for many people, if not most, such wellbeing remains, as mentioned above, highly elusive in a context weighed down by material want, alcoholism, illness (in particular HIV, diabetes, high-blood pressure), and spiritual war waged by malicious *towenaars* or *kwaadaandoeners*. Nevertheless, in amongst the vicissitudes and discouragements of everyday life, I became aware of practices and moments which 'built *krag*' and allowed for the refreshing of the spirit. Human interrelations such as moments of easy conviviality were central to these but always in concert with the wider world – God, new-born lambs on grand-

parents' stockposts, medicine-infused air on mountainsides, or the pungent waft of *bossiesmedisyne* cooking in the kitchen. Such practices went hand-in-hand with regular advice about how people should live in order to be strong, healthy, and *vol krag* (full of *krag*) as opposed to being *pap* (weak), and sickly. Informed by life, TV and radio, school, and local medical clinics, it is often said that people should not, for example: carelessly open themselves to the cold eastern wind without wearing the proper clothes; eat only shop-bought bread and meat lacking the *krag* of bread baked at home or meat raised on the bushes in the surrounding *veld*; drink too much alcohol; or generally not live in a godly way. *Krag* is both a part of everyday discourse and experience as well as being central to healing logics employed by local 'kruiedokters' (literally herbdokters, experts in using plants, among other things, in treating everyday illness as well as 'magical' illnesses caused by 'poisons' sent by *towenaars*, who work with help from the malignant power of the Devil) in their work. With her work on Chinese medicine and philosophies of health, Judith Farquhar has shown that medicine is not necessarily the 'grim and ghoulish business' that medical anthropology has often made it out to be. Rather than simply addressing 'suffering and death', she argues that 'medical practice might at times be a source not just of domination but of empowerment, not just of symptom relief but of significant pleasure' (Farquhar 1994: 471). My experiences in the Kamiesberg range have led me to wholeheartedly agree. When my friend oom Piet Claasen (fig. 22) exclaims '*dis lekker medisyne!*' (that's lovely medicine!) and rolls his shoulders in excitement upon seeing a flourishing sample of the bitter *jankie berend* (*Sutherlandia frutescens*) plant, he is not



Figure 22. Piet Claasen, outside Timm's house in Paulshoek.

thinking simply about the plant's ability to relieve a series of ailments. It is also a central component in his personal medicinal brew which, alongside his active lifestyle, he is convinced, has contributed to him remaining fit and vital even in his late sixties.

Casting about for a language with which to think and describe these things, my mind's eye stumbled again upon Farquhar's work describing everyday practices of *yangsheng*, 'life nurturance', or 'self cultivation', that guide the lives of people living in contemporary Beijing, and China more generally (Farquhar 2002, 2009). Through living life with a certain kind of regularity, eating well, wearing clothes fitting to the climate, engaging in gentle exercise and moderate sexual activity, and living in rhythm with the earth's own cycles, people cultivate their capacity for life, ideally one which is long, happy

and vital. Drawing on the work of 3rd-4th century Chinese philosopher Zhuangzi, Francois Jullien tells us that through practices of *yangsheng* one moves with and draws from the great 'world process' and the same source of energy (the 'heaven' within oneself and the world) which is its incitation. This *nourishes* one's *vitality* (Jullien 2007: 14). In a similar vein, since *krag* and *gees* derive ultimately from the Lord, and cannot be manufactured by human beings as such, peoples' aim in all those practices and advice was to orient themselves, and those they cared for, to the world in such a way as to channel these vital energies in beneficial ways. Like the farmer, mentioned above, who strives to cultivate or nurture the lives of his animals through working to create the best conditions for their growth within a living ecology, so it is something similar with *krag* and *gees*. As Marianna put it one day, articulating a commonly felt close association between the natural landscape and *krag*:

The *krag* that you get every day from God makes you stronger, because sometimes your *gees* gets weak so you can't really fight against everything that comes to strike you. So then if you have the *krag* every day from God then you have more *krag* to fight against the strikes from the Devil ... So that's how come that *krag* is there. So you are dependent on the Lord, and that's why many people go the *veld* so they can be in the open, under heaven and in the open air, can speak with the Lord and he can put his *krag* down on you and make your body clean so the *gees* of the Lord can come into you. So if you come to the house and lots of people argue around you, you'll have enough fighting *krag* within you in order to [overcome dirt and problems].

The landscape in the medicine, the medicine in the landscape

Another way to replenish *krag* is through consuming *bossiesmedisyne* prepared for oneself or by a knowledgeable friend or relative. Sometimes it might be necessary to consult a *kruiedokter* who acts as kind of supporting intermediary between the forces of good (God) and the forces of evil (sorcerers, the Devil) helping or hindering someone's life. *Kruiedokters* use various different means of divination to 'read' their patient's bodies and lives, but one important way is through the use of a mirror. Studying the patient's reflection in the mirror, the *dokter* looks for a 'dark' spot indicating where the poison is, and what kind of poison it is. The medicine which he or she mixes and prescribes will be targeted at this specific poison, to clean it out and in this way remove what is experienced by the patient and known by the *dokter* as a kind of blockage or devouring presence, stealing vital energies and making it impossible to live well. As described by Koos:

The poison sits on your liver and spreads out through your veins as it eats up your body's krag ... the krag of the medicines I make cleans that dirtiness out so that your body's krag can come back and you can be healthy and strong once again.

For many people in the Kamiesberg, as Nicola found in her own work (Wheat 2013: 56), *bossiesmedisyne* are seen to be more cleansing, more *vol krag* than biomedical pills. Unlike pills, people say, which leave residues in your body that '*verkalk* (calcify) your blood vessels', *bossies* 'flush your body out, and leave nothing behind.' This derives partly from experience with medicines, but also from wider experiences and relationships with the Kamiesberg landscape. *Bossies* have more krag precisely because they come from *die natuur*, whereas pills, even if they are ultimately derived from plants, are made from plants that are 'dead', processed. At the same time, how one prepares *bossiesmedisyne* can increase or decrease its krag, this paralleling an increase in pharmacological potency, as Gericke and Viljoen (2008) note in their discussion of the preparation of *kougoed*. Being able to source and/or prepare medicines that are *vol krag* is often seen as testament to the knowledge and skill of a genuine *kruiedokter*.

The notion of the cleanliness and power of natural medicines has parallels and crossovers with sentiments that at least on occasion see the town, or village, as a polluted place of rumours, arguments, and fights, contrasted with the revitalizing peace and quiet of the *veld*. I encountered almost exactly the same sentiments whilst conducting research into medicinal plant use among poor rural and semi-rural people in the Klein Karoo (Cohen 2009). Krag in the landscape, in plants, and animals, is witnessed by the kind of invigorating experience that Marianna described, above, and at the same time, in the life of the living beings of the landscape itself: for example, the green vigorous growth of annual plants after a big rain. The krag of some plants is known by some people through personal experiences of searching for them, plants' ways of 'hiding' in the surrounding vegetation a testament to a kind of tricky consciousness that again speaks of their krag. *Witvergeet* (literally 'white forget'), for example, is white, but its leaves are green and grass-like, so that it disappears in among the grassy fields of the high Kamiesberg mountains where it grows. With a good dose of humour, Koos linked this ability to evade one who looks for it to its capacity as a highly potent plant which, as the name suggests, is used to make people 'forget.' A thief might carry a small piece of the root in order that a shop owner doesn't see what he or she is up to. A *kruiedokter* might shave some root into a medicine he mixes in order that a *kwaadaandoener* 'forgets' to be 'busy' with their victim. Medicines that grew in the *veld* were regularly seen by *kruiedokters* as more full of krag than those

raised in gardens³¹. The former had had to 'struggle', as Koos once put it, in the sun and difficulties of the *veld*, but had also grown in places with the soil and other plants that they like, and so were necessarily stronger than those who had been pampered and watered all their lives – the '*mak*' (tame) plants whose krag was necessarily reduced.

Echoing the history of the Leliefontein mission and the land secured by its presence, John felt that the healing power of the Kamiesberg plants was also linked to God having allocated the Kamiesberg to its Khoisan residents. In a similar vein, Koos speaks often of how the British secured the land from the '*boer*' (Dutch/Afrikaans farmers), the latter viewed by Koos with huge resentment and anger. This land, combined with Koos' personality and skill as a kruiedokter are, Koos knows, a large part of the reason that he has been able to weather the toughest times and put food on the table. Whether or not John and Koos' claims are 'accurate', these sentiments speak of the historicized nature of the krag *van die natuur*, that its krag emerges not just in phenomenological experience of the present but in an ongoing entanglement of past, present, future, experience, story and memory. Simultaneously, the medicines that are found there are likewise charged.

Krag – an Afrikaans term - is both a concept and an experience, and it is an experience of *something* that includes and transcends the bounds of the living body. As a phenomenon, it has presence in the world. As a concept, as suggested by Marianna's comments, it is often spoken about in Church sermons, and is mentioned many times in Afrikaans bibles. It is a way of expressing an experience of the body in the world, and a way of expressing what is seen in the world. At the same time, it is a concept that is different from, but which exhibits many parallels with the ideas of potency that Chris Low argues is central to the healing practices and ideas of khoisan people, from 19th century Cape /Xam people to 21st century Damara in Namibia (Low 2008). In other words, like any other term, krag has a history and reflects history, and so cannot express in 'pure' terms a phenomenon – something like a 'lifeforce' in the world – that transcends that history. Should krag then be understood as a subjective and arbitrary signifier for an objective reality composed, *really*, of physicalism's entities?

In thinking about this question, it will be useful to draw upon the radical empiricism of William James. For James, empiricist philosophy to the early twentieth century had, taking the lead from Kant, reduced the once weighty and important *soul* to 'consciousness', a phenomenon in such a weakened state of 'pure diaphaneity,' as to be almost non-existent (James 1912:2). Rather than imagining the world to consist of physical things of a particular kind of substance on the one hand, and this ghostly, witnessing consciousness composed of another sort of substance on the other, he posited a continuity

³¹ Vermeulen (2008) notes similar sentiments expressed by San people in her study of the commodification of *Hoodia gordonii*, known in Namaqualand as !Gobba.

of the substance of 'pure experience' between world and thoughts. But this does not mean that he assumed a universal general 'stuff' of which both things and thoughts were made. 'If you ask what any bit of pure experience is made,' he writes, 'the answer is always the same:

'It is made of *that*, of just what appears, of space, of intensity, of flatness, brownness, heaviness, or what not.' (1912:26-27).

Thus, the world becomes vastly enriched through the infinite varieties of experience of which it is composed. From the perspective put forward by James, to entertain a thought of krag, no less than to directly experience it in one of Koos' plant-based medicines, is to be witness to and experience its living force, not just 'in the head' but potentially also throughout the body as mind escapes the confines of the skull. Just because the former krag will not necessarily cleanse and revitalize the body, whilst the latter can, this does not mean that one is real, and the other unreal. The krag in the mind and the krag in the medicine both have objective and subjective aspects proper to phenomena with existence in the world. The difference is not between real and unreal, but between the different ways each can affect the world, and the kinds of relations they enter into. Because of the continuity with the solid world of things that James grants it, a thought of krag has its krag-like nature, and persists and resists – i.e. *it makes some kind of difference* - in ways proper to itself.

I suggest considering a continuity between the experience of krag in the body, in the medicine/*veld*, and krag as a thought, as conceptualization. Experienced as phenomena, and reflected upon as thought-phenomena, there is here no radical break – only a point of relation - between krag as thing, krag as an experience, and krag as concept. The point is not to lock concept and phenomenon into an unchanging coupling of meaning and being. Every time one says or thinks 'krag', a constellation of associated experiences and ideas is necessarily brought forth – and this constellation is each time in some way different. The point is rather to acknowledge that just as concepts structure experience, experience structures concepts in a living and world-forming relation of unfolding. It is, with Viveiros de Castro, to recognise the vitality of concepts as phenomena *in* the world, not just descriptions *of* the world (Viveiros de Castro 2012: 67). Certainly krag shares similarities with the vital energies noted by Jung (see above). However, I am suggesting that the everyday vital concept of krag is useful for thought and understanding precisely because it locates the human as an ecologically constituted being, always both and neither culture and nature. Krag refuses dissolution into either one of these domains and is not a precursor or inaccurate attempt towards a universalized, modern understanding of energy. As a concept, it stands on its own two feet. In these terms, krag's mode of existence is none other than ecologically situated, conceptually informed, and bodied experiences of vitality, strength, and power.

Practice or skill?

If 'realities and distinctions are always done in practices' (Law 2007:17), then social science methods which turn towards an attention to practice as opposed to abstract conceptualisations *of* realities are to be welcomed. Human beings, after all, are obstinately corporeal organisms inhabiting a world which is similarly so. Nevertheless, I would add to this that at least as far as human beings are concerned (and probably for most other sentient creatures besides), realities and distinctions are always done in *skilled* practices. As a being at every moment multiply engaged with the complex terrain of life, a human must be attentive, by default, to a world which is never the same from one moment to the next. Whether a molecular biologist tapping off fractions from a gravity column, or a kruiedokter tackling a *kwaadaandoener*, this requires an 'intimate coupling of perception and action', which, through practice, becomes increasingly attuned to the world (Ingold 2011:58). He or she becomes ever more adept at making the slightest moment by moment adjustments necessary to respond to, and carry out tasks within, the changing conditions constituting the living ecology of which he or she forms a part. Thus, as John once commented:

A kruiedokter must be like a jackal – always watching, always aware because just as you block an attack from one side, they [sorcerers, others messing with bad medicine] will come at you from another.

Skills emerge as knowledge imparted as everyday advice or as the more formal training such as that given by a kruiedokter to an apprentice is tested, in a more or less intuitive trial and error way, in the everyday contexts of peoples' lives. In these ways, people become conscious of what may be causing *krag* (one's own, or of friends, family, or patients) to wane – be these 'normal' concerns such as arguments with one's relatives and friends, the cold which bites through to the bone in the deep of winter, or more magical concerns such as poisoning encountered in dream.

The development of perceptual skill in human social relations, in the bodily pressures inflicted by the climate, or in the messages one receives in dreams, flow, without division, into the skills necessary to effect a response, or a positive action of protection before the fact. A clear example of this might be knowing exactly when to crack the right kind of joke to lighten the mood. There is here no point when perception of social context and the words spoken can be separated one from the other. It is thus through such skills of perception and action that ecologies of wellbeing become known and in turn are participated in and formed.

At the same time – following Viveiros de Castro (2012) again - I would also want to caution against setting theory against practice, or concept against being. In much of Ingold's work (2000, 2011), for

example, there is a sense that *real* life, outside and beyond modernist categorisations and divisions, is carried on in immediate phenomenological, sensuous experience. Theories and concepts only arise, in this vision, once the immediacy of engaged life in the moment has – quite literally – passed away. Unfortunately, this does not fairly describe how anyone ('Western' or not) actually lives. Firstly, reflective thinking is unquestionably something that we *do* and so is also a practice as such. Secondly, it is hard to imagine any kind of practice which is not informed by theory, and theory which is not informed by the political-historical-economic-social context in which it arises and is deployed. As I sit with my embodied hands semi-skilfully negotiating an actual keyboard, I write this sentence even as I deploy received theories of writing whilst attempting to offer a novel(ish) idea to the world. By the same measure, and importantly considering our interests here, it is clear that concepts such as health, illness, strength, weakness, and vitality are inextricably bound both to how these aspects of life are experienced and what sense we make of them, how we conceptualize them. In short, the concept of skilled practice I wish to convey is one that can comfortably encompass theory, ideas as an aspect of human beings' practical engagement with the world.

To reiterate my point made above, networked lines of connection run perpendicular to the paths of movement inherent in these skills and to the paths traced by the organisms, materials, and substances within in which such skills find their efficacy. Put another way, an ecology formed of *paths* of life, not of *lines* of connection, is one in which krag, vitality, and life can subsist.

Because the skills involved in cultivating krag unfold in time and over time, the assortment of discrete practices outlined to this point can only serve as an indication of their breadth and diversity. It is only through retracing, at some length, examples of this unfolding that such skills can be brought to life and understood. What follows is an account of a particularly poignant day that touches on several recurring themes connected to wellbeing and the lack thereof; sociality, God, alcohol, cleanliness and dirtiness, respectability, the search for viable sources of income, food and nature. I have made use of an extended, continuous narrative³² in order to demonstrate how these themes merge seamlessly one into the other as life is lived in the Kamiesberg range.

A journey through the mountains and back again

During the first three weeks of my life in Paulshoek, I had spent a fair amount of time getting to know two young men who were spending several months living and learning from a local kruiedokter. This was Gert 'Joelk' Dirkse, whom I mentioned in the introduction. Andries, in his late 20s, had come to

32 Since this story touches on some sensitive and dangerous issues such as *vuilgoede* ('dirty things') associated with *toor* and alcohol I have changed certain details so that 'Sampie' and 'Sam' cannot be identified by anyone in the Leliefontein communal area who may read this.

stay with Gert for help with a problem he was suffering from and, having being cured, had stuck around to help Gert out around the stockpost – herding the animals, collecting firewood and medicines from the *veld*, and so on.

Gert, now quite infirm and sickly, could no longer collect medicines himself. He could, though, show and explain to me his various techniques of divination; about how he used to ‘tune in to nature’ in order to find medicines in the *veld*; about many of the plants, animal and mineral-based medicines he used, how he prepared and administered them; and about the different kinds of winds he treated.

What I felt to be a genuine rapport had developed between the three of us and I no longer felt awkward upon entering the *skerm* to chat, drink tea, and smoke. In fact, I had come to quite enjoy these chances to socialise amongst men of my own age. 26 year-old Sampie was himself a *kruiedokter* and one day said that if I would help him (with my *bakkie*) back to his home village far away in the northern end of the Western Cape, he would show me how he did his work, and explain a bit about how he divines sickness using a set of keys on a chain, and a mirror. Excited by this prospect, I agreed and a week or so later Sampie, Sampie’s friend Sam, Marianna and myself were packed into my *bakkie*, heading towards Sampie’s home.

Sam and Sampie, it turned out, were drunk. The usually polite and timid Sampie was now incredibly friendly, his hand on my shoulder, telling me about his life of difficult, low-paid work and unemployment. With a real talent for singing, Sam would break out into hymn-song, with Marianna and Sampie joining in enthusiastically where they could. Friendliness however, quickly turned to boisterousness and the journey became more and more fractious as the two began shouting at each other and then at Mariana and myself. The three-hour journey through the orange and yellow landscape of arid hills, scrub, and rock was a test of my stamina as I attempted to negotiate the treacherous terrains opening up both inside and outside the vehicle.

For anyone, and especially for people who perceive a bleak and uncertain present and future, alcohol is a tempting, and in some senses effective, escape from one’s day-to-day concerns; it is a quick and easy route toward sociality and fearlessness. Hence Sam’s hand on my shoulder. Yet it also pours fuel on smouldering fires of resentment and jealousy that can explode into arguments and fights over money and personal rivalries³³. Marianna is a well-respected person within Paulshoek and beyond and

33 See Ross (2010:28–29) for an excellent discussion of similar issues in a shack settlement on the outskirts of Cape Town.

I had never – to that point - seen any *sober* person be anything but *ordentlik* (translated to me as ‘respectful’) towards her. Hence her – and consequently my own – anxious state in the *bakkie*.

Our sense of ourselves is, in large measure, developed through the recognition we see of ourselves in the eyes, and responses, of others (Jackson 1996). When people are drunk they often don’t really see you, they look past you as they tell you what *they* want you to hear, do what *they* want to do. This was certainly true of Sam and Sampie that day and this had an immediate effect on my own sense of self in relation to these newly-alienated consciousnesses with which I was sharing my *bakkie*.

While we were still within the bounds of Paulshoek ‘community land’³⁴, Marianna made note of a stand of *taaibos* (a kind of woody bush, up to 3m high) we passed on the way. The dead, dried branches of these bushes make excellent firewood and she wanted to return on our way back to collect some so that she might warm her house later that night.

Upon our arrival at Sampie’s house, I was welcomed in, introduced to Sampie’s *grootmaak ma*³⁵ Johanna, a friendly elderly woman who is completely blind in both eyes. Sampie, Johanna, Sampie’s sister, Sam, Marianna and I sat around the immaculately tidy but worn out living room, on tattered couches placed upon the last remnants of a rug. I had brought along food enough for all to share and within minutes Sampie’s sister had prepared plates of avocado sandwiches and sweet tea for us all. The offer of tea and food and the tidied and clean home lent the moment a comforting sense of propriety, counterpoised to the impropriety and nervous discomfort of the *bakkie* journey. Marianna, now much more relaxed, took out her notepad and pen and began to talk with Johanna about her knowledge of medicinal plants.

This gave Sampie and I a chance to talk; not before, however, he had sneaked around the back of the house with a friend of his to down what must have been a long draught of ‘*rooiroppie*’³⁶ wine. Sampie directed me into his bedroom which doubled as his ‘clinic,’ and shut the door behind us. We sat on his single bed in a very tidy room, with big sacks of herbs all around. In one corner was a table with a

34 Aside from certain species of protected plants and animals, every resident in Paulshoek has free rights to the resources – firewood, medicine, building material – found in the *gemeenskap* (community) land that surrounds the village.

35 ‘*Grootmaak ma*’, literally ‘rearing mom,’ is applied to a woman who raises you in lieu of your ‘proper parents’. Sampie’s parents had died when he was a boy and so *ouma* (grandma) Johanna had taken on the responsibility. In fact, it is very common for people of my generation to have lost at least one parent to illness or violence. ‘*Ouma*’ is used to refer to the mother of your mother or father and women much older than you, and or women around seventy years old and over.

36 On account of its red lid, this is a colloquial name given to the popular ‘Namaqua Daisy’ brand of wine.

small deer skin covering it and on top of that a metal box with a padlock. 'Just like Gert', he said, meaning that he had a box of tools and medicines just like Gert Joelk, the powerful and well known kruiedokter we both knew.

In came his drinking partner, who, being a shepherd, knew a thing or two about plants. He told me that you have to believe in *bossies* or they won't work, you have to not drink, and you must be well-behaved. They both insisted I write everything down, although they could not decide if they wanted me to write or listen – as they continually interrupted one another. The friend repeatedly banged on my arm to get my attention – interrupting Sampie and I as I tried to write.

As I spoke with the friend, Sampie opened his box and did some kind of ritual - it looked like he was flicking away 'dirt' from his body with his hands and then padding his hand on his heart. He began to unpack his metal box of kruiedokter tools. Belying his intoxicated state, he carefully laid out his apparatus on his bedside table in an order and pattern very similar to other *dokters* I had spoken with in the local area. First to go down was a 20cm square patch of *rooikat* (lynx) skin. On this he placed a special smooth, flat stone upon which he would mix his medicines and on top of this a small mirror. Asking me to hold out my hand, he took out a glass jar containing what looked like scraps of orange-red dried blood and poured some of these into my open palm. These were, he told me, the 'poison' he had sucked out of the bodies of previous clients. Using a razor blade to open the skin and a cow horn held to the mouth to create suction, kruiedokters employ this technique to eliminate *toorsiekte* from the body. Picked up in the landscape, or sent by malevolent human others, these *vuilgoed* (dirty things) are the embodiment and exemplification of poison and negativity.

Sampie began asking me for money. Drunkenly telling of the *bakkie* he needed to get herbs, he asked me to give him R4000. I said I don't have that kind of money. 'Okay,' he responded, 'give me R1000.' I refused that too. He said he would make me a set of [magical] keys [used for divination] and sell it to me for R1000. Again I refused. Frustrated, he said 'we are now finished' and even tried to encourage Marianna (who had now come to see us in Sampie's room) to explain to me about the magic keys he would make for me in exchange for R1,000. He also offered (or threatened?) to put some of his *vuilgoed* in Marianna's hand. She looked confused and, knowing better than I what these were, refused. This was an atmosphere in which neither I nor Marianna wanted to dwell. Thanking and wishing a farewell to Sampie's family, we were soon back on the road.

Collecting wood, cultivating krag

I had been saddened to see the burgeoning good and friendly relations between myself and the usually amicable Sampie spoilt by requests for large amounts of money and his willingness to expose me to

poison. Whilst I was pondering my own naïveté and questioning my right to refuse money to someone who had after all taught me a lot about his work, Marianna requested that we stop at the *taaibos*. She was then able to do one of her favourite things – break off wood for her fire at home. This everyday, seemingly mundane activity nurtured Marianna’s *krag* and *gees* simultaneously in a number of ways, revitalising her (and me) as we tried to shake off the bad feeling – the pollution – the day had engendered. Whilst *taaibos* leaves can be boiled up and drunk as a flu medicine, on this occasion the plant would heal and nurture in other ways. As fuel, the wood would bring warmth to her home and to her children and new-born grandchild who live with her. The time and effort she devoted to the task in the *veld* would nurture the lives of her family in the near future.

Though it may sound silly to someone who has not tried it themselves, ripping large pieces of dead wood from a spiky *taaibos* without tearing one’s hands to shreds takes *skill*. First one must identify which bushes have dried branches suitable for firewood for not only do living branches not burn very well, but people are also very aware that if everyone were to take living limbs then there would soon be no *taaibos* left. Approaching the bush and sussing out which branch could be taken, one must then thread a hand through the tangle of thin crosswise branches by which the bush is encircled and feel out a suitable point to push or pull the branch against the main body of the plant. Ideally a successful break will result in a satisfying KRRACK! as a nice, thick and dry branch comes off in the hand. In time I have gotten marginally better at this but after a lifetime of practice, Marianna is a regular master. If Csikszentmihalyi and Bennett³⁷ are right that play is “a state of experience in which the actor’s ability to act matches the requirements for action in [her] environment” (1971:45), then Marianna certainly ‘plays’ wood collection and evidently very much enjoys the process. Beyond this, collecting wood brought back fond memories of Marianna’s childhood as a ‘*veldkind*’ (*veldchild*), living with her mother and father on a farm in the high Kamiesberg mountains. As a *veldkind* Marianna told me of the special affinity she feels she has with the natural world, with God’s creation.

It is to the quiet of *veld*, remember, that Marianna often goes in order to receive *krag* and *gees* from God. Being in the *veld* is not a question of observing, smelling, and hearing from *inside* one’s head, peering out as an ‘acosmic subject’ (Merleau-Ponty 1962: 214). Rather, as Ingold has pointed out:

Feeling ... infuses our entire being. It is not so much a way of making bodily contact with specific persons or things as a kind of interpenetration of the self and its surroundings: a certain way the world has, as Merleau-Ponty put it, ‘of invading us’

37 Authors of a seminal paper in the anthropology of play, entitled ‘An exploratory model of play’, published in 1971.

and our way of 'meeting this invasion' (Merleau-Ponty 1962: 317). Feeling, then, lies not just in what we *do* but in what we *are*: in that commingling of the perceiver with the world he or she inhabits ... (Ingold 2007b: 29).

A corollary of this is that the sight of the *vuilgoed*, though it did not enter my body in a way necessary to induce a *toorsiekte*, had in some way 'invaded' the two of us, as thought, and as perceptual commingling. Marianna had thought that Sampie's aim in handing me the poison may have been to weaken my own *krag*, in order, perhaps, to influence my decision on the money. She also said it's probably not a good idea for me to go and visit Sampie alone. In the end, I never saw him again.

Had his skill in doing so not been dampened by his intoxicated state, perhaps Sampie would have been successful in wresting some financial relief from my hands. In any case, in the vision of an open world I am suggesting, there is no need for material things to be imbued with 'agency' for them to nevertheless come to life (Ingold 2010). In Mary Douglas' famous formulation, uncleanness or dirt (i.e. *vuilgoed*) is 'matter out of place' ([1966] 2002:41). For Douglas, this is a matter of symbol and belief: that which is dirt is so because of the symbolic associations it invokes, positioning that thing out of its proper place, according to one's beliefs of how and where things should be. The thing itself is arbitrary. From one perspective, this is the case: for someone else, in another context, Sampie's *vuilgoed* could be seen as 'just dried blood'. Its status as poison is relationally contingent, to be sure. Nevertheless, reducing a thing's effects entirely to its symbolic associations denies to exactly the same degree the actual presence of the thing and its role in an actual, active relation.

Whether or not Marianna was correct, cast into the flow of time and the currents of our becoming, the *vuilgoed* had become an active, malignant presence, undermining my *krag*, needing to be cleansed. Upon returning to my house, I drank a glass of the bitter, cleansing medicine mixed for me by *oom* Piet and, availing myself of an instruction which often accompanies the taking of *bossiemedisyne*, lay down and rested. For a host of reasons, this was successful in revitalising myself. It is clear that through having crossed and to some extent shared our paths, the *taaibos*, Marianna, Sampie, Sam and I have, to a small extent at least, been transformed. Certainly, following that day, an embodied knowledge of the very real and poisonous potential of *toor* has constituted me as a subtly different person and, in turn, as a different anthropologist.

As Marianna suggested, Sampie's (semi-skilled) practices with the *vuilgoed* were not just about poisoning, but about influencing me too. Just as Sampie's tricky ways, his *vuilgoed*, had cast pollution 'into the current of my becoming,' he was also attempting to lure me in to his zone of influence, to establish a certain kind of unequal power relationship whereby I would accede to his requests: in

sending something towards me he was also trying to pull me away from myself. On this occasion, Sampie's lures were not particularly successful and I was able to cleanse myself with medicine. Sometimes, however, such lures can be so frighteningly successful that victims are physically inhabited by something '*vuil*' – a poison or a wind - and are enthral to their attacker, who can 'play' with them at a distance, take away their soul, and 'turn their lives to nothing.' However, it took another, quite devastating encounter with toor before I wandered towards the realisation that toor events can often be characterised by these kinds of simultaneous centripetal-centrifugal relations of force. It is to that encounter, and the insights it provoked, that I turn in the next chapter.

4.

‘Hy roep jou in’ (He calls you in)

As in both Charlie’s case, and Marianna and I’s experience with Sampie, instances and accusations of toor very often turn around jealousies caused by contexts of material inequalities and chronic unemployment. More than passing similarities to John and Jean Comaroff’s ‘occult economies’, where people experience the ‘dawning sense of chill desperation attendant on being left out of the promise of prosperity, of the *telos* of liberation,’ are certainly to be found in the Kamiesberg today (Comaroff and Comaroff 1999: 284). As I discuss further below, these contexts offer fertile soil for toor to grow, rich opportunities to find its way into peoples’ bodies and lives for (at least) three, interconnected reasons. Firstly, because jealousy, as a powerful and destructive emotion, poisons relations between people even before attempts at poisoning through toor are made. Secondly, because money and toor share a primordial place in oppositional economies of human powers and their manipulation: powers to own, the power - the krag - to live well, powers to travel, and powers to provide for oneself and one’s loved ones. And lastly, in line with Ashforth’s (2005) and Niehaus’ (2013) arguments in particular, because a profound sense of material, social and (for want of a better word) spiritual insecurity haunts many peoples’ lives for which toor can offer a ready-to-hand explanation and (occasional) solution.

However, I would caution against viewing toor as a local interpretation of an economically unequal, universalized reality. Rather, relations that are poisoned in particular ways, that take on particular forms, can be understood, literally, as *entoored* relations that constitute embodied personhoods in particular ways. As the following ethnographic stories aim to illustrate, such relations, precisely because they are constituting of personhood, have the capacity to take a person away from themselves, to limit their capacities for thought, will, for living itself. The stories also continue to show that it is in other kinds of relations - nurturing, krag-cultivating ones - that some people find ways toward some kind of escape from these.

Paul's *toorblikkie* (Paul's magic tin)

I had heard stories of 'Paul'³⁸, a man in his sixties, stories holding it as fact that he was 'naughty' and was known to mess around with bad *toor*. He himself had told me he was a 'kruiedokter', that he had taught Koos all Koos knows. One morning in August 2011, about a year after my adventures with Sampie, when I still at times felt insecure and lonely on my extended research trips, he found me on one of my trips to one of the Kamiesberg villages³⁹.

He was drunk and our conversation did not get very far. He slurred of being a *kruiedokter*, of working with '*die Here*' (the Lord), of reading a mirror and (playing) cards, '*Duiwelkuns*' Devil arts, and wondering if he might borrow R50 from me. I handed over two scrunched up R20 notes. He thanked me and said he'd pay me back soon.

As he walked away, he pulled an old handkerchief out of his pocket and thrust it towards my face. A familiar herby perfume filled my nostrils, distinctly reminiscent of the consulting rooms of *kruiedokters* I'd spent time with.

'Is it medicine, *oupa*⁴⁰ (grandpa)?' I asked.

'No!' he laughed, asking 'did you give me R40?'

'Yes *oupa*, and you said you'd give it back tomorrow.'

He unfolded the handkerchief, revealing the small green shoe polish tin within. He purposefully tapped the top of the tin twice with his knuckle, pausing for a moment as one might when knocking on someone's door, as if there were someone inside the tin who might answer. After a swirl of his finger around the top of the lid, he twisted it open thrust it towards my face.

My instinct was this was not good medicine. Amongst the manifold jumble of things, I spotted a dried out lizard curled around the outside edge of the tin, a dead beetle, an old South African coin and a small white ball about 1.5cm across. A chill ran down my neck and I was filled with sense of horrible discomfort.

'That's *toor*,' I said, 'I know that thing, take it away.'

³⁸ A pseudonym.

³⁹ Given the sensitive and potentially dangerous nature of this event, I must keep some details as vague as possible. Though I have never heard of any one being physically hurt directly because of an accusation of *toor* the stigma attached can lead to intense social alienation and counter-*toor*.

⁴⁰ Used to refer to the father of your mother or father, to men much older than you, and or to men around seventy years old and over.

Taking out the beetle, he put it to my face and told me to smell it. Without thinking, I moved my head back and away.

‘No *oupa*, I see what you’re doing’, I responded as I motioned him away from me. He left.

‘What the hell was he trying to do there?’ I thought to myself, ‘Impress me with his knowledge of medicine? Toor me? Make me forget about the R40? Had he come with the toor in his pocket to ensure that I gave him the R40 that I’d given him?’

I didn’t know.

Sleeping over at Koos’ place, a week later, I dreamt of crossing a dark bridge, finding at the other end a dark figure crouching next to – and offering me a spoonful from – a black *potjie*⁴¹ pot of hot, steaming soup. I did not drink.

In the morning I felt ‘not right,’ and tired, my body moved with difficulty.

Koos came and sat with me first thing that morning as I sat on the couch, trying to wake myself fully. I can’t remember him doing that before. I told him about Paul’s tin, the lizard, the coin, him asking me to smell the dead beetle, and so on.

‘That’s not a good thing’, said Koos. Considering the prominence of the coin in the centre of the tin, Koos thought Paul might have been trying to influence me into giving him all my money. ‘Yeah, that old man, he’s not right’, remarked Koos, ‘that one with the tin nonsense.’

I told him about my dream, that I hadn’t drank any of the soup.

‘That’s because God gave you *kennis* (knowledge) not to,’ he said, ‘but maybe some of the steam of the soup came into your nose and that’s why you don’t feel right today’ ... ‘The *gees* that God gave you feels tired – you are not *lus* (have no appetite) for anything. You want to do things, but you’re just tired and want to sleep. Your body won’t move as you want it to.’

This was *exactly* how I felt...

A week later, Paul visited my dreams again. I was walking close to ‘my’ house in Paulshoek and saw him walking toward me with another friend. The friend had a big lump under his thick grey-black jumper and he pulled out a large, grey-brown root and the both of them told me to taste it.

⁴¹ Heavy, black, iron cauldron-like pots usually with legs that are placed over fires, used for cooking in households without electricity, or when money for electricity runs out.

I said 'no', turned my back, and began walking away.

They followed me saying 'taste it, go on, it tastes *lekker*(delicious).'

I refused again and then woke up. The familiar energy-sapped, listless feeling described by Koos returned and stayed with me for months thereafter. In early November 2011, I was back in Cape Town, dark dreams of Paul still troubling me, when the panic attacks started, quite unlike anything I'd experienced before. These were characterized by overwhelming feelings of anxiety, headaches and a tingling in my left hand and foot. Biomedical doctors told me my blood pressure was extremely, dangerously high. In simple conversations with friends, I was over-sensitive to all the possible ways of interpreting everything they were saying, and every meaning-filled movement or look overpowered me. I felt like I saw every angle, an overwhelming flood of insights and affects. I had to retreat into a closed room and lie down. Every sound took me out of myself into a tense space that threatened to overpower me with the certainty of its sound against the uncertainty I felt at that moment. It was all I could do to lie down, cover my ears and move not a muscle. Breathing deeply to calm my pounding heart, drinking glass after glass of water, I would in perhaps an hour be in a position to leave the quiet of the room. This was an experience that was repeated several times in the next two months, to varying degrees of horror, anxiety and discomfort. Blood pressure medication and time away from Namaqualand brought an end to the attacks. However, I will probably be on this medication for the rest of my life, the events with Paul having pointed biomedical doctors to what they call 'familial hypertension.'

Koos and his singing frogs

It was around 7.30 in the evening, early on in October 2013. Koos' family and I had just finished dinner and as the daylight faded into night, we were gathering together in his little house near one of the Kamiesberg villages. With no electricity, the dinner – a motley, tasty blend of tinned food I'd brought with and freshly fire-baked bread - had been expertly cooked by his wife, daughter and son in the *kookhuis*⁴² ('cookhouse') just outside the main house. If Koos had no patients to attend to, or for other more mysterious reasons of shared mood, dinner would sometimes be followed by sleep, sometimes by family sociality: telling jokes, listening to stories by the fire, or, as we were preparing to do that evening, in the house itself.

⁴² Literally meaning 'cookhouse', many Kamiesberg residents have a construction of wood, corrugated iron, or other material outside but close to the main house where food is prepared on a fireplace at ground level.

As I was taking my place on the little couch, wedged in between Koss' daughters, son-in-law, grandchild, son and wife, Koos called me over to the front door of his house with an excitedly conspiratorial little wave.

'Come out here, Jossie Bossie (the nickname he calls me by),' he said, 'I want to show you something.'

Pulling myself out of the family crunch, I went over to Koos who was listening attentively, *animatedly* to a sound that regularly follows heavy rains at that time of year.

'Listen, Jossie Bossie, to the frogs in the river, how they're singing for us.'

Listening, I could hear the hypnotic *trill-trill-trilling* sound coming from the darkness of the seasonal river, a hundred meters or so from *Koos'* house.

Wellbeing and hopes for a good, decent, and meaningful life

For many people I spoke with and know in the Kamiesberg, and more than likely for many others as well, wellbeing hinges in large measure on being able to realise and experience a life that is to some degree consonant with their sense about what a good, decent, or meaningful life might be. When this proves impossible, people can become despondent, and lose all sense of purpose. Their *krag* wanes. Among Koos' patients, in addition to the need for a healthy body and spirit, two interlinked themes were most regularly articulated as requirements for a good, decent, meaningful life - the predominant reasons that they had come to see Koos: with the hope that Koos could help them attain these things, very often through protecting them from, or cleansing them of, the toor of others blocking their paths of life. These were, briefly, good relationships with other humans and non-humans, and a certain level of material wealth. They wanted – and, with expectations diminishing with age, thought it right that they should have – a *krag vol* body free of pain and illness; with loose and energetic limbs, where 'everything flows as it should.' Wind should not build up painfully in the belly, urine and faeces should not become blocked or too free-flowing, organs should do and be as they should, with a *gees* in good, happy condition too⁴³. They wanted – and thought it right that they should have – good relationships with family, wives and husbands, lovers, friends, and neighbours. They wanted – and thought it right they should have – an income that could secure food for themselves and their family; to have access to land where they could productively keep sheep and goats that remained healthy and free from disease; to be able to pay for children's education; a house with electricity, a healthy water source,

⁴³ I discuss these notions of the healthy body in greater detail in chapter five.

and a roof which did not leak when it rains; and a *bakkie* for getting to town and for transporting others and their sheep and goats.

Relationships

Whilst the need for good relationships with those people, places, animals and things that make up our lives is arguably a universal human requirement for a good life, this perhaps takes on a certain kind of encompassing immediacy, a particular 'flavour,' in the small villages of the Kamiesberg where the sounds, smells, sights, and dramas of one's life impinge and cross-over, unavoidably, with those of others. Indeed, in the early weeks and months of living in and around Paulshoek, one recurring theme of everyday life – a lack of privacy - was particularly challenging in this new environment. My every movement in and around the area, it seemed to me, was being watched and taken note of by someone. My elderly neighbour would comment on my closed curtains and ask me, because of this, what I was afraid of; others would comment on having noticed my *spoor* – my footprints or the tracks of my *bakkie* going this way or that; children would come knocking at six in the morning, wanting to chat, play and accompany me on my daily rounds; every time I would return to the village, someone would be annoyed at me for having returned at a date different to that which they'd heard from someone else that I would return; and I heard all kinds of concocted stories and rumours about me – that I was the father of this or that child, that I was a *sangoma*.

Such a close awareness and scrutiny of others' movements and behaviour was a ubiquitous feature of life for many of the people I came to know in the area. A more or less permanent immersion in the sociality of village life – including, but also going beyond the limits of the immediate household, however that is constituted - is unavoidable. There are the less frequent, larger events that everyone in the village, even if they are not invited or present, will at the very least know about: christenings, births, funerals, dances in the village community hall. There is what might be called the sociality of everyday life in villages isolated by distance from larger towns, where travelling beyond the confines of the immediate village or adjacent communal land takes a prohibitively large amount of money, time and/or effort. In the Leliefontein villages, including Paulshoek, most people do not own their own transport, and if they do, may not have enough fuel to travel to larger towns on a regular basis.

In this relative geographical isolation, a great deal of time is spent visiting – often involving the sharing of cups of tea, coffee, wine, beer, and food - with nearby friends, family and neighbours. Conversation more often than not revolves around what happened or is going on with others in the village, and surrounding villages and communally and privately held land, and the goats and sheep people keep there. During the day, and especially at night, away from any traffic, you can hear

neighbours' arguments and (sometimes drunken) singing, even on the far side of the village: ripe occasions for yet more discussion and speculation. People will often watch for others' foot and tyre tracks in the sandy paths connecting houses; an ever-evolving pathwork of evidence testifying to people's movements through and in and out of the village. Even if one chooses to stay at home, to keep the door locked, that in itself can become a topic of interest and rumour.

It is perhaps unsurprising that many 'prescribed' 'magical' medicines are focused on cultivating and repairing good relations, or protecting people from harmful relations encountered in everyday life. For example, there is '*soet hout*' (sweet wood): the stem of a particular plant that has a distinctly sweet, liquorice-like taste. The patient who has been unable to get along with his friends and neighbours, holds a very small piece of the stem in his/her mouth when going about his daily rounds of sociality. The root makes him or her 'speak sweetly' so that peaceful, friendly conversations and relations might replace argumentative, combative ones. For those fighting with or split up from wives, husbands, lovers or friends, Koos includes a small amount of the nest of a species of bird that lives in large, communal nests. The communal nature of the bird is aimed at bringing those people together again. Then there are the medicines that kruiedokters rub into *sny plekke* (cut places). These are tiny cuts, often made with razor blades on the arms of patients into which kruiedokters rub potent medicines, the aim of which is both to boost the patient's *krag* whilst offering a kind of early warning system as to the presence of malignant *toor*. Once these heal over, the effect remains. One who is '*in gesny*' (cut in) in this manner experiences a kind of vibration at the site of the cut if they were to, for example, walk into a room where someone had planted a *toorblikke*, or more generally a home inhabited by '*vuil mense*' (dirty people) – i.e. those messing around with bad medicine.

Sociality, though, is not limited to waking life, and there is the shared realm of 'the *gees*', closely associated with God, of which all people share a part, through which and in which people can visit one another, in visions or dreams, where neither physical distance nor even death are an obstacle. I have often heard of and met kruiedokters who, by 'looking in the spirit,' sometimes with the aid of a photograph of the person in question, can dream a vision of who or what is plaguing their patient. Or, they can send their *gees* to a far off place to intervene in their patient's lives, to '*maak oop hulle se pad*' (open their path of life) as Koos put it. They also check on patients, on patients' family and friends, or to see what a *towenaar* might be up to. This is a common skill claimed by kruiedokters.⁴⁴ Here, John describes his experience of this:

⁴⁴ In chapter 5 I will discuss these kinds of abilities and experiences – while avoiding reductionist or explanatory arguments - in relation to recent literature on 'parapsychology' and related areas of study.

What happens, for example, if I sit and look, that feeling, the picture, the picture shines in front of me. You understand? It is almost like a film which plays in front of me. Now, that is how the brain works, I place myself there, I place my whole body up there, in there, and then it gives me a sign about what goes on over there or ... that is almost like a feeling/sensation, a feeling you get and if it is that [that is going on there]. For example if I want to go from here to the Cape, I want to look there, then the brain concentrates on that particular area where the building is and it shows me precisely how that person looks, what that person is doing there, how it is going with them, what is going on in that person's house. I can see it clearly in my mind, inside my brain, because ... it brings it back for me. And they sit just like I saw the thing, so they give the rendering of it for me.

Some people might be visited by *oorlede*(deceased) relatives who still look out for their welfare. Mariana's father, for example, would often visit her in her dreams to warn her of dangers on her path. Paraphrased here, Mariana tells me how

My dad came to me in a dream to warn me that someone had put something in the road near my house, where I always walk. My leg had gone lame because of this. In the dream, I walked with my dad, through the garden to the place where it was – a little packet of medicine wrapped in blue paper. My dad told me [...] had put it there and my dad went to him and told him to heal me of it. The guy himself [the *kwaadaandoener*] called me [in waking life] and told me to go over to him to be cured. I did and I was.

Many of those, such as Mariana, who grew up living on stock-posts, on farms, in the *veld*, who often refer to themselves as '*veld kinders*' (*veld* children) feel, in themselves, a special affinity for the plants, animals and landscapes of Namaqualand. As touched upon in the previous chapter, a relationship with the *veld*, as a place of peaceful refuge and connection with *die gees*, *die Here*, is important for these people's – and others' - sense of wellbeing: a place to be away from the stresses, fights, and jealousies of the village.

Inequality, poverty, and jealousy

In agreement with a great deal of academic literature on witchcraft, many people told me that people mostly attempt to toor others because of jealousy (e.g. Turner 1975: 238; Devisch 1993: 168; Pelgrim 2003; Tebbe 2011; see Low 2004: 171-173 for a discussion of the connection between jealousy and

witchcraft in 'bushman' history and present). Although jealousy of a romantic-sexual kind was quite prevalent, mostly this was jealousy of others' wealth in animals, property, and money – as it was in Charlie's experience, in my experiences with Sampie and with Paul and in Jan's story (in chapter five). Indeed, in conditions of poverty and inequality, the complex weave of everyday sociality has ample opportunity to give rise to jealousy, for relations to sour. Most people have experience of long-standing, often exploitative, unequal relations with (usually white) farmers who own most of the land surrounding the Kamiesberg communal areas. People suffer a lack of opportunities for employment and low pay even if employment is found. Money, as Marx pointed out in 1844, through the universality of its potential for exchange, allows for the transformation of ephemeral desires for objects and capacities into their 'sensuous actual existence', whereby;

That which is for me through the medium of money – that for which I can pay (i.e., which money can buy) – that am I myself, the possessor of the money. The extent of the power of money is the extent of my power. Money's properties are my – the possessor's – properties and essential powers. (Marx [1844] 1988:137)

In other words, in a bourgeois money economy, such as that which dominates in the Kamiesberg, a person's capacity to be, to have and to do rest to a great extent upon the money at their disposal. '*Alles* (everything),' as people often said to me '*is geld* (is money).' And without money, one's powers are diminished to exactly the same extent – a demoralizing reality for many in the Kamiesberg where this most prized and useful of things is for most people in woefully short supply. People are understandably concerned with others' (perceived) wealth, and my own – seen as a rich, white student - became a familiar topic of discussion and interest.

Wealth, power and race have a long, murky history across South Africa, and Namaqualand is no exception; where people still speak of violent loss of land through apartheid policies; where living memory includes first-hand accounts of violent punishment meted out by white farm owners upon their workers; and where some farmers still insist that their coloured workers sit always in the open back of their *bakkies*, use the back door to the farm house, and eat off of separate crockery. Indeed, one *kruiedokter* even explicitly spoke of racist, exploitative, white farmers as *towenaars* – people who actively use and destroy other people's lives for the benefit of their own. Neither is inequality necessarily split only along (historically constituted) race lines – some coloured families and individuals are demonstrably considerably more materially well off than others. As mentioned above, Lebert and Rohde (2007) argue that although land reform has led to an extension of the land available to the commonage in Namaqualand, the land that has been added has often been in areas

far away from peoples' homes, meaning that only those with the wealth and resources to access those areas, to pay shepherds to watch their flock and so on, have benefitted.

Such processes fuel the sense – the direct, experiential knowledge - that wealth is the preserve of the few achieved at the cost of the many. All this whilst people see others, anthropologists for example, riding around in expensive vehicles; and on television, of which many people watch hours every day, the lives of middle class consumers of all skin colours play out their imaginary television lives in soaps and advertisements. It is unsurprising that such contexts regularly lead to jealousy. Some accuse their attackers of being jealous of their education or previous work experience, and so of attempting to 'hold me back so I don't go forward'. Others look to those with wealth and question why it is that '*they*' always seem to get money and work 'while I sit and suffer.' Visits to a kruiedokter are often precipitated by such concerns – people seeking protection and cleansing from the jealous intentions, made manifest through toor, that others may be sending their way. Others simply seek for luck in finding work, more or less independently of concerns about others' sorcerous intentions.

Precipitated by the lack of work close to home, men and women regularly spend months at a time away from families, working on farms and mines, or go in search of work in larger nearby towns such as Springbok and Vredendal, or in '*Die Kaap*' (Cape Town and surrounds). Such mobility and family fluidity is a fact of life in many places within South Africa (see for example Spiegel 1987; Ross 1993; Hosegood, McGrath & Moultrie, 2009; Neves and du Toit 2013), a source of insecurity for which people regularly seek the protection and help of specialists such as kruiedokters. Thus, it is also not uncommon for people to ask kruiedokters to protect absent family members from dangerous toor encountered in unknown, foreign places, or at least to check that they are doing ok.

Poisoning relations

When a *kwaadaandoener* wants to cause harm –perhaps because of the jealousy that inequality engenders - to sap someone's wellbeing, it makes sense, given the above, that he or she attacks, more often than not – their victim's body and spirit, relationships and wealth. With an ultimate source in the Devil, toor is a force to do evil, to harm others at a distance, where the attacker sends harm in thought in the direction of the person they intend to do harm, normally using some physical substrate to carry his/her intentions over. 'It basically works', said John,

with how the people's thoughts work. If I sit with those sinful thoughts, for example, and I want to sin. It goes through my mental state, the thought I had about what I want to do. Then I form for me that type of filth [poison, toor objects] the sort of thing I want to do to the next person. Now, I don't do it with my hands, so people can see that

I do it with my hands. No I do it with my knowledge or my thoughts, the wrong thing.

That is how the story goes.

The tangible things of toor, through which its shadowy force operates, include the living, growing, krag-sapping poisoning entities, (described by Koos in chapter three) that poisons give rise to in the bodies of the afflicted, and the 'traps' *towenaars* dig into the earth under pathways, designed to shoot poison into those who step on them. Sometimes it is said such traps cause a powder of poison to be released into the air and up the nostrils of the intended victim, whilst other traps poison simply through the contact of foot with trap. There are '*xaimpies*' – small (around 5cm square) bundles formed by wrapping malignant substances in pieces of cloth, paper or plastic – that *towenaars* place in strategic places to bring bad luck and illness to their victims; and '*toorblikkies*' ('magic tins'), like the one that Paul thrust into my face, that *towenaars* carry around with them containing harmful, powerful substances which aim at increasing their luck and power at the expense of those around them.

Though the contents of *toorblikkies* may be intended to give rise to krag-sapping winds and poisons, it is not always through and in the medium of wind that their potencies travel. There are at least five other modes through which they are intended to effect an impact: through the krag which is inherent to their substance or origin (e.g. the fat or blood or body parts of powerful animals such as baboons, snakes or lizards); through the evocation of dark, liminal forces (e.g. the ground up bones of human corpses); in a manner, akin to James Frazer's 'homeopathic magic,' where like produces like (e.g. a razor blade intends to 'cut' a person off from their purpose); or a coin might attempt to influence that person's wealth, to funnel it somehow towards the *kwaadaandoener*; and lastly through something similar to Frazer's 'contagious magic,' association by contiguity, where once something is in contact with something else, those things are always in contact (Frazer [1890] 1922). These are modes which are neither exclusive to one another, nor to the winds and smells with which they are associated and which at times carry their potencies from person to person and place to place. In fact, the skilful combination of these modes is what many *towenaars* excel at in creating their malicious toor. Peter Carstens (1966: 179), writing on research carried out on various Namaqualand communal reserves the 1950s, mentions '*blik draers*' (tin carriers) as a name used at that time to refer to people using bad medicine. Saying someone 'carries' (*dra*) is similarly used today.

At these moments it is no coincidence that toor often finds its way into people's bodies and lives through the things and relations through which wellbeing is sustained. *Xaimpies* placed in and around the home make this essential life-making location foreboding and dangerous. *Toorblikkies* placed on the paths walked in daily life make every day journeys of sociality potentially hazardous.

Poison might also be slipped into one's *food* or *wine* so that that which should in normal circumstances be the basis for a '*lekker kuier*' (nice visit), of a tasty meal, an occasion for cultivating *krag*, becomes its opposite. People poisoned through shared wine, it is said, often become lousy drunks, drinking too much and fighting even with those who are supposed to be their friends. The attacker might use poisonous plants or animals in toor that seeks to blind or kill: in this way, one's relationship with nature, that which should nurture, likewise becomes a poisonous one. Toor might also be delivered through the medium of dream. The *gees*, source of life, divine inspiration, protection and expanded sociality at one time, becomes an avenue for the bodily invasion of poison at another. Thus, when she experiences a troubling dream, of 'black things' suggestive of toor, one *ouma*⁴⁵ (grandma) told me that she swallows a handful of salt to 'flush it out.'

From the other 'side', that of *kruiedokters*, there are also the medicines - most often plant-based but also including animal and mineral products – that *kruiedokters* make and administer as snuffs or decoctions/infusions, designed to kill the aforementioned poison-spawned entities and work them out of the bodies of the afflicted. Whilst these medicines may not be viewed as toor in themselves, they are still intimately bound up with toor and poison. For it is through such medicines that the toor poisoning a patient's body is killed, 'brought together' – almost as a broom sweeps dust and dirt together on the floor – and then flushed out of the body. At that point, toor's physical manifestation is made apparent as the snakes or other 'black, dirty things' which are ejected from the body along with vomit or faeces.

Some *kruiedokters* – such as Koos – practice '*snywerk*' (literally 'cutting' or 'slicing'), a form of cupping where the *dokter* makes a small cut in the skin of the patient, close to a site of pain. In previous generations, a hollowed out cow horn and the *dokter's* mouth was used to create suction over the cut, in this way drawing out the pain-causing poison. Although the historical reasons and theory are not clearly known, similar practices seem to have a long history in the area. Barnabas Shaw, writing in the 1840s, recognised that the 'savages' he came to 'civilize' had, alongside a knowledge of how to use medicinal plants, a method of 'cupping', using a horn to suck blood out of a scarified wound as an effective remedy for pain. In fact, that method seems in at least one instance to have been more effective than any of Shaw's own cures (Shaw 1841: 147). Unable to find a remedy for the pain in his knee, Shaw describes how

Jacob Links, assisted by his father, performed the operation. Several incisions were made in the part affected, from which Keudo Links sucked a quantity of blood. This greatly

⁴⁵ 'Ouma' is used to refer to the mother of your mother or father, as well generally women much older than you, and or women around seventy years old and over.

alleviated the pain, but left the joint quite stiff, so that I had to walk with a crutch and stick. (Shaw 1841: 101)

Today, as we saw in chapter one, a kruiedokter might use a tennis ball with a hole cut into it to create the necessary suction. In either case, the result is the same – small, dark blobs of poison are drawn out with a small amount of blood. These blobs are, again, the physical, tangible form of the effects of malevolent toor. Whilst these should be buried immediately, allowing them to first dry and then inspecting the form they take gives an indication of the identity of their ‘master’ (*baas*) and his or her work. So, for example, it may dry into the form of a scorpion, indicating it was sent by a *towenaar* who works with scorpion poison in their toor. These dried out blobs were the highly potent ‘*vuilgoed*’ which Sampie placed on my hand in chapter three. There are the *xaimpies* that kruiedokters themselves make and give to their patients to carry around with them, or to place in strategic places in their homes, designed to protect them from evil toor and return it to its sender(s). These *xaimpies* might contain something simple like a powerful root dipped in the fat or blood of a fearsome animal, or more complex ingredients including a host of powerful plants, and other objects designed to protect or attack. There are also the medicines designed to be burned in patients’ homes to clear away bad magic or troublesome beings such as the gremlin-like *tokoloshes*.

So, in sum, an ecology of relationships and things – that which is not us but through which we are, and which – ideally – is meant to sustain life and wellbeing, is poisoned and turned into relations that are destructive and sapping of krag. To a great extent, the potency of toor, and things and objects associated with toor emanates out of those things, aiming *at* those who come into some kind of contact with them. And kruiedokters do, typically, attempt to block and cleanse toor and its effects, and send these back to whomever is deemed to have sent it- to make possible the cultivation of krag in the bodies of their patients.

‘Hy roep jou in’ (He calls you in)

However, the incident with Paul and his ‘magic tin’, above, pointed me to the fact that it is not just krag which is lost or stolen through poison and the poisoning of relationships – a person’s very sense of self can be taken as they become ‘bound’ by toor, somehow caught up in the person that is, or they think is, attacking them. When I told Doris, a Kamiesberg-based friend, about Paul’s waking-world and dream-world visits, of the *toorblikkie*, the beetle, of the soup, she remarked quite matter-of-factly that ‘*ja, hy roep jou in*’ (‘yes, he’s calling/inviting you in’). This was a moment that precipitated a new insight. To that point, I had been working with the assumption that toor was something that was ‘projected out’ from the attacker, *at* the victim. And, from one perspective, this

is an entirely accurate description, as we saw above, of what toor does and is. Paul attacked me at a vulnerable moment, at a vulnerable aspect of my life in Paulshoek - my access to a relatively (compared to most people in the Kamiesberg) large source of money that was a point of interest for many people I met. He had shown me a collection of objects that sent a chill down my neck; and tried to make me *breathe* a dangerous substance – attacking my moment to moment source of life: in local terms, my *lewende wind* (living wind, discussed at length in chapter five). He *had* directed these things at me with the intention of doing harm.

Nevertheless, after Doris' comment that I was being called or *invited* by Paul, I began to think differently or to re-think about my experience – realising that I had somehow become *fascinated*, drawn in to Paul's presence by his tricks with the tin. In Stenger's terms, I had been quite effectively *lured* into a relational experience of an agency that did not belong to me even if it included me, but a 'me' as it was 'lured into feeling' (Stengers 2012). And what a destructive, negative feeling it was. I had wondered what exactly he was trying to do: my uncertainty only increased by his refusal to answer when I caught up with him at a later date. I saw others' experiences with toor in a new light, too, and began to notice another side to the way people spoke about toor: that it has centripetal *and* centrifugal aspects to its force; that it seeks not only to sap krag, but one's 'mind,' too.

Sometimes the discovery or knowledge of a suspicious object or word, or an experience or dream suggestive of toor, *precedes* a visit to a kruiedokter. Sometimes seeing a suspicious object or hearing a suspicious word precipitates a dream of toor. At other times, kruiedokters aim, through their diagnoses, to bring into concrete presence the 'thing' around which paths of life are turning (a process discussed further in chapter five). Yet, whichever way around things go, there is usually a sense for the patient that they are being lured into a particular, negatively affective, relation with something, someone, that is *not them* and which can take them away from themselves into the *xaimpie's/toorblikkie's/kwaadaandoener's* zone of influence.

If you take up the invitation, so to speak, of a *kwaadaandoener*, you will likely be, as people say, '*gevang*' (caught) – a bit like an animal in a snare: this giving a new sense to the 'traps' people say are laid in your path. As Koos told me: 'people use the heads of lizards and snakes, either mulled up or whole in these traps which then acts like a magnet, attracting you to it, then grabbing hold of you and not letting go.' In the Kamiesberg, people identify an essential part of themselves with *their* God-given unique *gees*, sometimes synonymous with soul (*siel*), sometimes indicating something closer to *gedagtes* (thoughts) or *breins* (brain/mind). People who are *gevang* might lose their ability to act on their own volition: unable to walk their own path as intended by God they might walk a path planned for them by a *kwaadaandoener*. As an example, the following is from an interview I

conducted in 2012 with 'Erik'⁴⁶, a middle-aged Paulshoek resident who, like many other people, had a few years before gone looking for work – in this case, building work - in a larger Western Cape town.

J: When did the story begin?

E: Look I went there to go and work

J: In Clanwilliam⁴⁷?

E: Yes and this guy got me work but in at the same time he was working with *vuilheid* (dirtiness). And I was working for him and then if it happened that I would aim to have the weekend off, to come and visit home, then on Monday I would say I want to go home to visit but then when Friday came around then it would be that I would just be off work but I wouldn't come and visit. So in the meantime it was actually him working it to be like that ... actually so I would stay and work for him...

J: And that time you were in Clanwilliam, did you know something wasn't right? Something was cutting you off? Or what ...how can I say? You were blocked there in Clanwilliam?

E: Ja, I was blocked there ... so what happened ...one night I dreamt of my [late] father [who was a kruiedokter] and [after that] I felt that there was something which wasn't *lekker* [nice]. I mean the stuff worked so that I must stay there. I was blocked so that I couldn't come here, I must just stay there.

J: So your father told you in the dream [that something *vuil* was going on].

E: Ja, in the dream. So then I called them [my family] and told them they must look, come and see someone this [Paulshoek] side and look and see if that is how it is. And see if that thing can be broken so that I can come to this side.

J: And how did that work, why couldn't you just sit on a taxi and come to the house? Or what?

E: Yes, look, that guy didn't want me to come back home, he wanted me to stay and work and so he could receive my money, so he could get a profit out, so my money would pay for the electricity and rates... And look, he also does this [kruiedokter] work,

⁴⁶ A pseudonym.

⁴⁷ 200km North of Cape Town, with a population of around 8,000.

he works with herbs too. But look that money didn't cover everything and I had to pay to stay there, and for the month I had to pay him r800 and then sometimes he would get other money from me but the money never came back.

J: So actually you had almost become a slave.

E: Yes.

J: But you couldn't just decide 'no today I will just go out' he didn't say to you that you mustn't go out or was there something *in you* which just said no I can't go and take a taxi, or what?

E: Yes, look if I wanted to come home then I would say to him 'this Friday I would like to go and visit my family' and he would say 'ja, *nee*, that's okay' ('yes, no, that's okay'). But then I would just stay – and that was on the Monday – and I would stay during the week. So if on the Monday I said I would come on the weekend then he would work it so that when Friday comes, I stay, I don't come anymore. Look, that where I wanted to go to is taken away.

J: So that's like you want to but...

E: Yes, it's like I want to but if it comes to the time that I must come [home], then I change so that I don't want to come. I leave that and I stay.

J: So it wasn't like he locked you up in a room. It was more like he played with you so that something inside you ...

E: Yes, how can I say? He actually worked with my brains. Look, I decide now and then I go to lie down, then in the morning, then I have another decision. I decide 'no I won't come anymore.'

Eventually, happily, there was a way out for Erik. His sister told me their late father visited her in a dream and gave her the cell phone number of a *kruiedokter* who had been able to 'break' Erik's bond with his captor, enabling Erik to travel home. The *dokter* then gave Erik some cleansing medicine to rid him once and for all of the *vuilgoed* that had been holding him so tightly. Erik has never been back to Clanwilliam, despite having left many of his belongings behind. In fact, he himself has, in 2014, begun to 'walk the path' of a *kruiedokter*: because he has a gift he feels, inherited from his father, and, perhaps most importantly for him, because 'at the end of the day it's an income.' Sometimes it's not just a strange inability to carry out one's intentions that signals the presence of

toor, of someone 'working' with your brains, putting *their* will in place of your own. In the worst cases of toor, where all purpose is truly lost, soul-spirit-mind, and along with it, a person's self, can be completely taken away: the person reduced to a coma-like state.

This luring side of toor finds parallels in other aspects of the uncanny forces and presences that inhabit the world. When out looking for medicines in the mountain, for example, people with an affinity for *bossiemedisyne* might feel they are attracted, 'like a magnet' towards a medicine they are looking for, or even towards a new medicine they'd never seen before. The *waterslang's*⁴⁸ krag is closely associated with the krag of nature, but also with the uncanny krag of kruiedokters and toordokters (a generally pejorative term referring meaning 'witchdoctor', someone who uses toor for tricky, harmful, 'naughty ends'): Koos and John have both referred to the *waterslang itself* as a kind of kruiedokter. According to the stories, the *waterslang's* most common encounter with human beings is of a luring or attracting kind. If you are a woman the *waterslang* might come to visit you in the form of a 'handsome man', with a smart black suit, and a black moustache – black, again, being a colour closely associated with toor. He seduces you and takes you back to his watery home and you may never be seen again. Alternatively, he might turn himself into a friendly, cute little creature like a *dassie* or a hare, and unsuspecting, you might be tempted to go near, even hunt him or her (some *waterslangs* are male, some female) – and that too might be the last thing you did. Or you might be cursed, given 'bad luck.' Where the *waterslang* uses sexual attraction, or appetite for food, to lure you into folly, Satan, with whom *kwaadaandoeners* work, lures people with promises of success: as long as they give him their soul, and do his bidding. As John put it:

... look, basically how that works is if he [the *kwaadaandoener*] comes in different forms, those are the different ways the Devil uses them. You understand? He worships the Devil, he asks what he must do ... and he [the Devil] says this must happen and that must happen because his whole brain and his spirit is totally given over to the Devil. So he believes in the devil that gives him the stuff [toor, *poison*] so what thoughts he puts in his [the *kwaadaandoener's*] brain, that is what happens. That is basically how that stuff happens ... His life is totally and utterly blown over to the Devil, to do sin.

⁴⁸ The 'watersnake', mentioned in the introduction, said to inhabit ravines and other places associated with water in the Kamiesberg landscape. The idea of powerful snake beings inhabiting and associated with water places and with water itself is today common throughout the region, as well as in historical ethnographic material (for example, see Hoff 1997).

Koos' singing frogs

The events recounted in this chapter illustrate that *kwaadaandoeners* are a powerful presence in their victims' lives. Working with the power of Satan, in ways that associate them with other powerful, uncanny presences that inhabit the world, not only can they poison the bodies, spirits and vital relationships (in waking and dream life) of those they attack, but they are able to lure their victims into a relationship in which the victim is no longer entirely really his or her self. When a kruiedokter attempts to cure a patient of his or her ailment, therefore, the *dokter* has to be *vol krag* and protected for at least two reasons. Firstly, because the patient is poisoned and/or caught by a powerful other who draws on the power and negativity of Satan. Secondly, because of the close relationship, the connection, that exists between attacker and victim, the *kwaadaandoener* knows, or at least wants to know, what their victim is doing: including if he or she goes to see a kruiedokter in an attempt to undo their toor. Therefore, in treating their patients, in trying to undo a *kwaadaandoener's* toor, in trying to protect their patients and send toor back to its source, kruiedokters come between an aggressor and their victim and *they themselves* face attack. They must therefore be skilful 'like a jackal', but also *strong*: this is why most kruiedokters are men, men seen to be stronger, more able to fight in the battlefield that constitutes the world of toor. Kruiedokters thus aim to cultivate their krag as most people do - with food, clothes, good relationships with family and friends - whatever helps them to stay fit, strong and as well as possible. But kruiedokters also maintain their krag in ways more unique to their profession.

Simply being a kruiedokter implies that one already has some protection, some innate krag in that in many cases a kruiedokter is born into the practice – often having had the God-given talent passed down to them from a kruiedokter in previous generations of their family. Some are 'born with the caul on their heads,' a sign that they were gifted in this domain. God is on their side, looks out for them and helps them in their work of healing. For Koos, *die krag van die Here* (the power of the Lord) is closely intertwined with the *krag van die natuur* (the power of nature). In fact, they are almost the same thing and his knowledge and experience of one informs his knowledge and experience of the other. The frogs and their singing, singing which he's heard since he was a boy every year the river ran after the winter rains, was one small, but nonetheless animating relationship Koos had maintained with the animals, plants and other living phenomena that live in or pass through the little patch of Namaqualand he calls home. For his whole life he has lived in or around the dry, mountainous *grond* which he inherited from his father. Working with sheep and goats as shearer and shepherd, a life spent outdoors, he has observed and learnt weather patterns, the life cycles, behaviours and the medicinal and food uses of plants and animals. Koos' skill in recognising and using plants, in knowing the animals,

landscape and climate of his corner of the Kamiesberg, his home for more than six decades, is inextricable from his sense of his life's purpose and value. And, as we saw in the previous chapter, this is a relationship with a landscape which has been invested with *krag* and a kind of purity not just through personal experience, but also through the strained, constrained and contested role of land in the life of the Kamiesberg.

It has been through these on-going relationships and experiences of sight, touch, smell, taste, and emotion they entail that he has gotten to know – in a very personal sense - *die natuur*, the 'wonderful work of the Lord.' It is through and in these relationships that he has become accustomed to the *krag* of *die natuur*, and learnt that the lives of plants and animals are 'just the same as lives of people.' Just as plants' and animals' *liggaam se krag* (body *krag*) waxes and wanes because of illness, climate, environment and age, so too does that of people. These relationships and the knowledge they have garnered have enabled him to become a well-known *kruiedokter*. He knows which medicines to use, and when, what powerful roots and other objects and substances to use to cleanse and protect his patients, himself and his family (see further details of this in the following chapter). But also, because his relationships with *die natuur* keeps him *vol krag*, his *gees* fresh and his relationship with *die Here* strong, enemies find it harder to overpower him, to poison him.

Several of the (now late) Paulshoek *dokters* – according to their friends and family - including Willem Berend, Jan Joseph, and Gert Joelk spent most of their lives, and conducted most of their *dokter* work, on stock posts away from village life itself. They were 'more *veld* people,' 'closer to nature', which, in Marianna's opinion anyway, 'must certainly have helped their medicine work better.' Different *dokters* have/had different methods for 'tuning in' to the *veld*, to nature, in order that they might feel the *krag* and *gees* of *die natuur/die Here* and or be guided toward a medicinal plant. For some, it's enough to be quiet and just walk through the *veld*, smelling, looking, listening. Others might actively pray and ask for the spirit of God to enter them. According to John (who learnt about *bossiesmedisyne* from Gert Joelk), Gert had had a very particular way of 'tuning in': he would hold a particular sort of stone in his mouth whilst out in the *veld*. 'That [stone] comes from Nature ... you understand', said John, '... so that gave to him that extra *krag* with that opening of his heart with which he is busy to speak to his God.' Describing the intimate connection between one's relationship with God, one's *krag* to defend oneself from *kwaadaandoeners*, and one's skills and abilities as a *kruiedokter*, John went on to explain that

I can't just do what I want, I must speak with the Lord about it so that I get my direction. And that is the best way to set out. Because you get different ways in which that stuff comes to you, how the dirty things come to you. So if your body

is not spiritually right, then they do what they want with you. If your body is weak immediately they will take their chance to get inside and make trouble inside your body ... the guy gets you and then it's finished. He can just send you a 'stamp' [like a 'touch' from a 'dirty' person] and then it's finished. And that is how these herbs work, how the story is.

John described each plant as having its own living spirit – known through one's experiences of the living *veld* – and this is a spirit given by God just as He gave people their spirits. Koos said he would sometimes encounter the spirits of plants in his travels in the *gees* – and these might sometimes direct him to a new healing use for those plants. A *dokter's* spirit – and belief - should work *with* the spirit of the plants he or she puts into their medicines. According to John,

... you must do it with the belief that God, that He gives you direction through every bush that I must use. He will point out in your spiritual life, each bush that must be put together [when treating a patient]. And that is how you learn. And every day He will give you direction: "that is the thing you can use, that is the bush that I planted in nature, so use that as a herb, or as a medicine to give to people." But it is *baie lekker* [really lovely]. This work is *lekker* work but there come times. You get your ups and downs. Everything hangs on what you have inside your soul. Your belief is the most important part of this work. If you believe this thing won't work, this herb will not help people. That's like as if you take what the Lord gave you and throw it in the rubbish bin. And it doesn't work like that. You must believe that that bush that he planted in the *veld*, you can use that bush to make people healthy. Then that will happen. That is basically how it works.

Kruiedokters of the past, I was told, found other ways of drawing on the krag of nature in order to strengthen themselves and their powers. Echoing Laidler's account (1928), some late kruiedokters were said to have drawn on the power of the *waterslang* to increase their own krag. Just as Laidler wrote, they captured a *waterslang* by 'throwing wet cow dung on its head' in order to steal and draw krag from the 'stone,' 'mirror' or 'light' that is said to sit in the middle of these huge beasts' foreheads.

But it's not just kruiedokters' relationships with God, nature and the watersnake that help them tackle a *kwaadaandoener*: relationships develop over time with the tools used in their practices. All the Kamiesberg kruiedokters with whom I have spoken, or late *dokters* about whom I have heard stories, have certain tools of the trade with which they divine and prepare their medicines. For example, as mentioned above, the divinatory tool of choice in the Kamiesberg is the mirror and a set of keys or

beads. The preparation of medicine usually involves a flat stone and a bulbous grinding stone. Whilst not necessarily 'magic' in themselves, a kruiedokter's tools become, through the use he or she makes of them, associated with his or her person, *gees* and *krag*. Sometimes it is said the *dokter* becomes their '*baas*', master: they have some kind of semi-conscious, potent presence of their own that the *dokter* must control or work with in order to do good in people's lives. The poisons and traps of *kwaadaandoeners* possess a similar, dangerous semi-conscious presence that is part of their danger. This is probably the presence that Paul was evoking, conjuring, when he knocked on his green shoe polish tin before he opened it and thrust its contents into my face.

Though new materials can and often are added to a kruiedokter's litany of equipment and medicine (see fig 23), the development of this association between *dokter* and tools over time increases his or her abilities to divine, to prepare medicine and cure sickness and combat evil *toor*.



Figure 23. A kruiedokter's work table, with various tools, medicines and other *vol krag* objects on it. In the picture, he is preparing a medicine for one of his patients, and placing it on some paper in order to be wrapped up.

This means that when a kruiedokter passes away it is no trivial matter as to what the family should do with these potent objects. Ideally, said John, before their passing, the kruiedokter should *introduce* his tools and medicines to another kruiedokter who can take these over, so that when the time comes these conscious-semi-conscious entities know who it is that is coming to collect them and so will be less likely to cause harm and mischief.

Whether or not such an introduction is made, it should in theory always be a kruiedokter, or at least someone with knowledge and power in such realms, that comes to collect a late *dokter's* tools and medicines. Only these people know how to manage and control the objects' living potency. Very often

a kruiedokter will store and carry his medicines and tools around in a '*trommel*' (literally 'drum') – a (usually metal) case of some sort, which becomes the object of attention when he or she passes away. When one well-known Kamiesberg kruiedokter passed away, for example, his family were concerned that someone 'who knows what they are doing' should come and take away his medicines. Some people felt that that they were still around without a *baas* (boss, master) meant they might start causing trouble in people's lives. Sometimes the *dokter* who collects the tools and medicines, or the *trommel*, might try and domesticate their potency in order to use these in their own work. Alternatively, these may be buried somewhere in the *veld*, away, in theory, from people. Thus, the landscape of the Kamiesberg is dotted with such *trommels* of kruiedokters-passed. Those who know about such things avoid those places, aware that the *trommels*' magical potency – associated with their 'masters' - can and do cause mischief to people and animals who stray too close.

In sum, when someone's relationships, body, spirit, life and mind are poisoned by toor, when they are 'caught', and 'blocked,' when they develop a krag-consuming, pain-causing *wind*, when they have no luck in love and work, they may go to see a kruiedokter. When they do, they come not just as themselves but as someone unwillingly bound to a *kwaadaandoener* and his or her malicious thoughts and poisons. Whether these are imagined or 'real', I have only my experience with Paul, and people's own testimonies to go on and I make no claim one way or the other. Either way, while belief is certainly part of the field of relations that blocks people's lives, personhood-forming relations are themselves *entoored* through jealousy, inequality, and *vuil* objects, ideas and experiences. Patients so *entoored* might be lucky enough to come to a kruiedokter who is strong enough, who brings with them relationships with powers, presences, tools and medicines that can rival and take on the one who is 'busy' with them. In the following chapter I will look further at the crucial term 'wind' through the story of a young man I name 'Jan' and this will give us an opportunity to explore how *Koos* brings his own ecology of relations to bear on 'the wind choking Jan.'

5.

‘Toor is ‘n wind’ (Toor is a wind)

Look, a toor is a *wind*. You see? If you break wind ... if you get herbs, then it comes out, then you are healthy because the wind has come out.

Aunty Anna Nero, Paulshoek, 2012

The wind choking Jan

Jan, a young man not yet 20, had been suffering for two years from a wind that would choke him – literally blocking his breathing - in the night. On one of my trips to the Kamiesberg, Marianna and I heard that he was not doing so well and so we went to see him, in a nearby village, in the house he shares with his mother, “Susan”, and his grandmother. Jan was sitting in the kitchen, complaining that the ‘thing’ was in his chest, rubbing a piece of pig fat⁴⁹ where the wind was.

The *wind*, said Jan, in some discomfort, keeps on ‘jumping’ back and forth between his foot and his chest. As soon as the chest stops being tight, his foot hurts and begins to swell - and vice versa. When the wind in his chest is bad, there is a kind of gurgling-creaking sound in his stomach-chest area. The day before Jan felt like his chest was pulling so tight he couldn’t breathe so he threw a handful of salt into his mouth and drank some milk. As was the aim, this caused him to throw up, and his stomach to ‘work’ (i.e. he defecated). This made him feel a bit better, as did the praying of his family members around him.

In an attempt to find a remedy to these problems, he had been to two biomedical specialists, in Vredendal, at separate times, to whom he had been referred by his doctor in Springbok⁵⁰. The first

⁴⁹ I will discuss why later in the chapter.

⁵⁰ From a relatively wealthy family in the area, Susan and Jan have private access to such services.

specialist had done an ultrasound of his heart and lungs and found they were fine. He had suggested that the creaking sound could be caused by his diaphragm and nerves. The second, a dermatologist, 'just gave me a *smeermiddel* (medicated cream) (at r500 a tube, according to his mother)' to smear on his hands and feet. Jan and Susan said this didn't help at all.

"The [doctors and nurses] just don't have any idea," they said, "they just said it's good to burp or break wind, they don't understand the danger of a *wind*."

Jan felt that Koos' medicine was the only thing that had helped and since they trusted him, Koos was the only kruiedokter they'd (so far) been to see about the issue. Since that medicine was now running out, they wondered if I could maybe take them to see him. I said I was happy to help out and so later that day Jan, Susan, Marianna and myself made our way in my *bakkie* to see Koos.

'Wind'

The word '*wind*', as it is commonly used in the Leliefontein Communal Area, as Jan used it that day, is a polyvalent term, linking a suite of phenomena – including weather, breath, spirit, poison, smell, trapped gas, dirt and toor - between which there is sometimes assumed to be absolute identity. At other times, the word groups together the same phenomena as having causal, analogous or more 'familial' associations. The tangible and common, though sometimes elusive nature of the term reflects the phenomena themselves, in turn being quite fitting for its use across a wide range of associated, shifting domains.

Firstly, let us consider wind as an aspect of the weather. It is common perhaps for many of us to speak and think of wind as something 'out there', outside the window, that which makes the leaves rustle, a meteorological phenomenon that involves the movement of air from areas of high to low pressure. And this is an entirely accurate description. In the Kamiesberg, wind is also understood as such. However, step outside and soon wind becomes something else – it is that which surrounds you, takes your breath away, cools you, envelopes you. And in a place such as the Kamiesberg, where for many people a great deal of life involves being out in the (often hilly, mountainous) *veld*, collecting firewood and medicines, tending animals, walking long paths from place to place, and where homes often have no insulation nor roofs free of holes, the wind can only sometimes be thought of and known as something 'outside.' It is rather, very often, *all around* blowing into and through one's body - the 'interpenetration of the self and its surroundings' that Ingold (2007:29) spoke of in chapter three. As Marianna once put it, the cold winter mountain wind, 'bites deep into your flesh.'

With its large, open skies without a tall building or big tree in sight (see figure 24 below), it is possible to see weather fronts and their movements in Namaqualand from a great distance. A regular topic

of conversation, people often try to triangulate their own knowledge of weather and winds with forecasts heard on the radio or seen on the TV. Pointing this direction or that, often to clouds and other weather phenomena on the horizon, people commonly know where lies the north, south, east and west - and what winds coming from these directions might mean for the weather in the near future. A red setting sun, for example, might mean an easterly wind the next day which would likely bring with it cold and dry weather whilst a southerly wind in the winter might indicate rain coming 'from the Cape'.



Figure 24. The dry, open landscape of the Kamiesberg, not far from Koos' house. The author's vehicle is at the base of the hill.

But it is not just in terms of the weather that people must attend to the wind. For example, it is important to know that if the wind blows through one's dwelling place, towards 'skelm (cunning, naughty) jackals hiding in the bushes,' then those jackals will know whether humans or dogs are around to chase them off. Without their protectors, goats, sheep, and especially lambs and kids are easy pickings for hungry jackals. On the other hand, I was told, jackals will avoid being upwind of dogs on a *veepos* so that the dogs may not catch their smell and chase them off.

Wind, life and health

Smell, wind and breath are closely bound and the smells, breathed in, of *bossiesmedisyne* wafting on the wind is partly why being in *die natuur* is a healthy, refreshing experience for many people. Such smells evoke the *krag van die natuur* (the krag of nature) which is inherent to the healing potencies of his medicines, implicating in turn the presence of God who created the medicines in the first place.

The smell and taste of plants is often what gives people clues as to their identity and use. Most medicinal plants, for example, have a strong smell and those which are bitter on the tongue normally have a use for 'stomach problems' of various kinds. Wheat (2013: 53) mentions that *oom* 'Kootjie' Corjeus used plants in this way (see also Laidler 1928, Nortje 2011 on bitter plants for stomach ailments). One kruiedokter said that you can tell which plants are '*tjommies*' (chums) or '*maats*' (mates) – having a use for similar ailments – by the fact that those plants have a similar smell: a smell which, with a good nose and a preferable wind direction, one can follow to track down medicines on the mountainside. The propensity for smells and tastes to carry potencies of all sorts is part of the reason why kruiedokters encourage a pleasant smell in their consultation rooms and *trommels* through the use of certain kinds of store-bought perfumes, smells which mingle with the varied scents of the varied medicinal plants with which consulting rooms are usually filled. It is also why medicines – such as wild garlic - intended to protect people from malevolent *toor*, are often those with a strong odour.

There exists a complex mutually-confirming relationship between these experiences of the living vitality of wind and conceptualisations of wind in relation to life and healing. As people told me, one is alive because of the wind – or breath – that the Lord breathed into you. This '*lewende wind*' (living wind) – often equated with the *Heilige Gees* (Holy Spirit) – 'lives' in your '*groot aar*,' the 'big vein,' sometimes named as your aorta, that 'sits above your liver.' As was common with knowledge having to do with anatomy, kruiedokters, *smeervrouens*⁵¹ and 'lay' people alike explicitly linked knowledge of this blood vessel with their many experiences of butchering sheep and goats. The exact behaviour and relationship to (un)wellbeing of this wind was, however, a topic of quite some divided opinion. One *smeervrou*, for example, thought that if your *lewende wind* was 'too much' or 'too little,' your *groot aar* could 'wander' around the body, your blood would not pump as it should, and the organ would need to be smear-massaged back into place for *krag* and well-being to be restored. This propensity for unhealthy organs to move around inside the body is a theme that Low argues is very common in Khoisan healing concepts (Low 2004). Another *smeervrou*⁵², however, told me your *groot aar* doesn't move around at all, that the idea that it could was just 'a lie.' Koos, for his part, denied that the *groot aar* could move around but could simply either 'pump' or not: it is this wind which works with the heart to pump blood around the body. No-one I spoke to was quite sure what the precise relationship between wind and *gees* was. It was agreed, however, that, along with *gedagtes* (thoughts) and *breins* (brain), one's wind and *gees* formed different parts of the same 'thing;' that it was because everyone is of the same *gees* that people can use their *gedagtes/breins* to send *toor*

⁵¹ The plural of *smeervrou*.

⁵² 'Smear-massage woman', like Auntie Sarah, whom we met in chapter one.

your way; and that one's vital wind so affected, or poisoned, a sickness-inducing wind could be caused to arise in the body.

Gif-toor is thought to be blown onto the wind by *towenaars*, creeping under doors at night as you sleep. Breathed in, such poison can cause all kinds of problems, ailments and pains. At other times, 'natural' or *toor* winds enter the body through breath, other orifices, dreams, or even directly through the skin. These winds themselves – rather than what they *carry* - can give rise to *toor*- and *Godsiektes* which have as their experiential manifestation qualities which are unmistakably air- or wind-like in form and movement.

Illness-causing winds, including simple trapped gas caused by indigestion and other stomach problems, exhibit two very common and intermingling propensities: firstly, as we saw with Charlie, to act as a blockage, very much like air in a pipe, which can cause pain, constipation, urine not to flow, muscles to stiffen, blood to slow, and organs to move 'out of place'; and secondly, to act semi-consciously, in a manner synonymous with a *bose gees* (evil spirit). As in Jan's case, this propensity for blockage and being a *bose gees* are not mutually exclusive. Among *kruiedokters* and lay people alike, the muscles being 'loose' and having the blood, urine, breath, and bowels flow as they should is accorded great importance for people's sense of health and well-being. Just as one's body can be 'blocked' so ill-health or bad luck can block one's life from moving along the path of life pre-ordained by God. A *bose gees* wind is profoundly tricky, malevolent and slippery, often moving like a blowing wind around the body, causing pain in now this, now that part of the body, slipping perhaps, up the back, round to the stomach, into the knee. Such a wind/evil spirit is sometimes spoken of as a snake, frog or lizard. Often, the form of the wind mirrors, or simply *is* the kind of poison used in the *toor* which caused the wind to arise. So, someone 'working with the snake' will induce in their victims a wind that takes the form, and even behaviour, of a snake in its movement around the body and may induce dreams of 'a big black snake,' (see below), for example. These are, again, conscious-semi-conscious presences that react to the contexts through which their 'host' moves. Several of Koos' patients had a wind like this which would 'stand up' or become 'brave' – causing pain, palpitations, even fits – when *Koos* was not around, and settling down and hiding as soon as he was.

Indeed, returning to our story, Jan had that day commented that normally when he starts on his way to Koos, the wind goes quiet. He wanted Koos to see and hear its effects for himself but Koos' presence, or even his *expected* presence would cause it to be 'shy' and 'not show itself.' Because of this relationally reticent 'personality' of his wind, Jan was looking and feeling a lot better as we made our way to Koos' place.

What poison does in the body, so wind is

In many ways much of the above, including: winds and smell carrying potency, information, and magic; illness causing and being caused by organs moving out of place; and winds' propensity to 'stand up' or 'hide' associates the Kamiesberg quite strongly with what Chris Low has spoken of as 'a consistent pattern of like thought and behavior' associated with 'Khoisan' medicine (2007:72). Such patterns seem to stretch in time and space from 19th century Cape /Xam people through contemporary Nama, Damara and Ju'hoansi people in Namibia. Drawing from the thought of Levy-Bruhl, Low suggests that in Khoisan thought :

The form defines the potency in strength and nature. An elephant is big and strong; it therefore does big and strong things. A bird flies because it has feathers and wings. In human terms personal potency relates to the form of someone – the stock of what they are and what they can do. In a sense, their form is their wind and it is movable (Low 2007:74).

Whilst form and strength of a person in the Kamiesberg is more likely to be spoken of in terms of his or her *krag* and *gees* – perhaps a result of the strong, long-standing Christian influence in the area – this comment does certainly resonate with many aspects of *kruiedokters'* work. For example, what *toor*, *gif* (poison) and other illnesses *do* in the body, their movement, their strength, *are* – in many senses- their wind and it is through wind that *gif's* life in the body, and its movement out of it, are known. This is why John could speak of cancer as a kind of wind:

... like what I've seen with my eyes, for my part is that is a wind you understand, it causes that ... it causes a wind in those places, so immediately if the part of the body is cut in order to remove it, then it has already moved. It's like a living thing, it sits and eats in the person. Now, it waits until it gets air and then it moves away so there is a sneakiness behind that, [it] is so *skelm* (sly) that it moves immediately, so [because herbs work on the whole body at once] it can be combatted with these herbs ... So for example, they laser in the arm or in the leg, now immediately if they are operated [on], cut open there, then it sprays out, and it comes and sits, perhaps in the shoulder or in the top of the arm, here in the back, it moves there. It sits there and eats and in that what it destroys your body until it's totally too weak ... So immediately, your body is on its way to the ground.

Thus winds' characteristic movements around the body are the signs that people look for when trying to identify the cause of their suffering – and evidence that what was troubling and blocking up inside

has moved to the outside – in most cases, in the vomit or faeces. Once expelled from the body, people might look in the vomit or faeces for similar evidence that the poison is out, and the origin of the poison. If, as in Charlie’s story in chapter one, the *kruiedokter* draws the poison out through cuts in the skin, the form the poison ‘blob’ takes outside of the body may – as mentioned in chapter four – be read as an indication of the kind of poison used. It may dry into the form of a scorpion, or even into the face of the person who sent it (see fig 25). Several of Koos’ patients, including Jan, had a *bose gees* kind of wind which would ‘stand up’ or become ‘brave’ – causing pain, palpitations, even fits – when Koos was not around, and settling down and hiding as soon as he was. Ideally, a *bose gees* kind of wind, as a living thing within the body of the afflicted, should be killed by the *dokter* and his medicines and then brought out of the body.

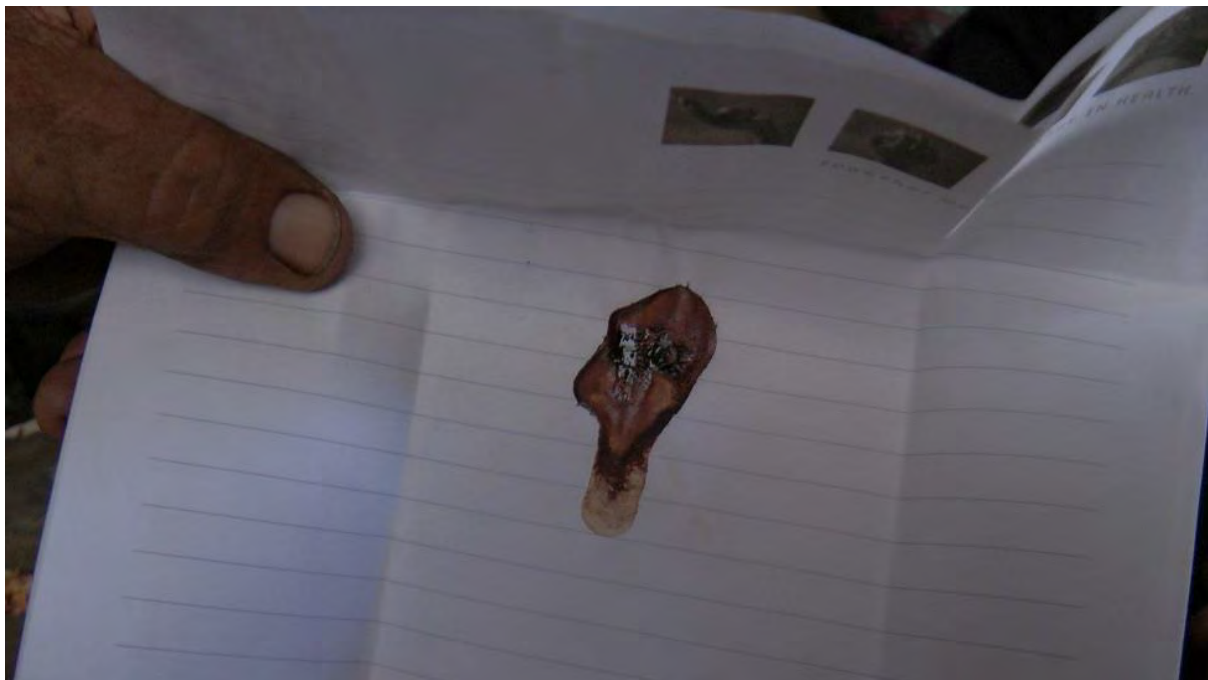


Figure 25. The dried form an extracted poison ‘blob’ has taken. According to the *kruiedokter* doctor who extracted it, the form describes the face of the person who sent the toor.

Winds, stomachs, and the ‘nerves’ in the stomach are closely associated. These ‘nerves’ are liable to be ‘worked up’ by the ‘stress’ of everyday life, of toor attacks, giving rise to a troubling wind in the body. This links to a widely shared notion, commented upon by Laidler, that stress can settle in physically locatable points in the body (Laidler 1928: 435). Thus the *kougoed* plant which both settles the nerves and encourages burping and farting is a highly prized medicine and is made regular use of. This is also why Koos’ patients would sometimes burp repeatedly, unashamedly as I drove them home from a consultation with Gert. As with many forms of ‘traditional medicine’, plants and medicines which encourage vomiting and the bowels to loosen are also commonly prescribed for similar reasons. This is also why *kruiedokters* will sometimes work with *smeervrouens* who – as in

Charlie's case - usually with the aid of fats and other oils, smear-massage and manipulate patients' flesh in order to make it supple and aid in the loosening of winds which are 'stuck'. In discussing what seems to be an extremely widespread human tendency to connect wind and related phenomena with human wellbeing, knowledges of disease, and approaches to medicine, Low and Hsu argue that, at least in part, these similarities in thought derive from the fact that:

Wind provides an exceptional sensory experience. The feeling of mingling is evoked as it is felt both on the body surface and inside the body. It can be smelt, heard and felt, if not touched, and its effects are visible. As wind, including smell and sound, sometimes in combination, is often felt but not seen, it is also a readily available causal concept for events that can be felt to occur but are not seen to occur (2007:10).

This is a sentiment with which I would generally agree. Indeed, as we have seen, in the Kamiesberg, wind, smell, breath and taste *do* offer experientially-based knowledge of that which is unseen. How you attend and orientate yourself to these can have profound implications for life lived in the open air, for the health and well-being of humans and animals alike. However, in tying the phenomenon of wind to illnesses and ailments of various kinds, I would want to go further in the appreciation of the substantiality of the wind in the lives of people I know in the Kamiesberg. I would want to add – thinking of Jan's intense experiences of *actual strangulation* of his airways - that this not just a *feeling* of mingling, perhaps set on the 'embodied,' subjective side of things. It is rather an *actual* mingling of living person and environment, which, through the processes of inhalation and exhalation, is essential to the continuation of life. 'To feel the wind and breathe the air,' as Ingold writes (Ingold 2007b: 32) evocatively, 'is ... to ride on the wave of the world's ongoing formation.' And, of course, this ongoing formation includes that of human beings. Aside from its penetration through the bodily orifices, its cooling and warming action upon us, the wind leaves its subtle traces etched in our very skin, over time transforming its appearance and form and thus our sensual relation with the world (see Serres 2008:71 for a powerful account of similar processes). And as anyone who has spent any time in the Kamiesberg will know, weather-beaten faces are not hard to spot! In short, it is from the perspective of having lived much of life in the open air, through knowing the wind as intimately bound up with life, in experience and in conceptualization, and in this sense in some way being *of* the wind, that the term 'wind' has been drawn into models of health, illness and toor.

Experienced as phenomena, and reflected upon as thought-phenomena, there is, as with krag, no radical break – only a point of relation - between wind as thing, wind as an experience, and wind as concept. When it comes to the wind of toor, what it does, so it is and what it does has weight and

force. Weight and force with a very real ability affect bodily blockages within the person-in-becoming, knocking them, as in Jan's case, from what they see as their proper path of life; weight and force which are neither entirely human nor extra-human in origin but which, as we will see below, kruiedokters and their patients, *kwaardaandoeners* and their victims, all play a role in crafting and manipulating. And like anything that is crafted into being, wind can affect as much as it is an effect, can manipulate as much as it is manipulated. Tricky to handle, it takes an expert to protect and cleanse a person of a wind - the kind of expert that Susan felt Koos to be.

At Koos' place

After an hour and a half of driving over bumpy, sandy roads and mountain passes, we finally pulled up to the old kruiedokter's house. In a typically jovial mood, Koos met us with a smiling face and jokes. Before getting to 'business' in Koos' consulting room, we sat down in the living room, Koos in a light mood, announcing to us all that 'You know, I'm just a great *kans vatter* (chance taker, imposter).'

'No, *oom*,' responded Susan, 'you've healed lots of people.'

'No,' Koos asserted, '*lewende Jesus maak siektes gesond* (living Jesus cures sickness)'

'Ja, that's true,' admitted Susan.

Susan told Koos of Jan's salt incident and how there were little bits of some 'brown stuff' in what he'd thrown up. She also told Jan not to hold his burping back so Koos could hear the gurgling-creaking noise in his chest – and we all heard it.

Koos, contemplating Jan sitting on the couch opposite, said that the recent return of his symptoms had been the result of his attacker playing with Jan's dreams. 'You dreamt of three pieces of meat, two small pieces and one long piece, a lamb leg as long as your arm, but that piece was all dirty. That's how the poison got in to you, though you didn't eat it all because if you had, you'd be dead.'

'So he dreamt it in?' asked Susan.

'Ja.'

Koos continued with his jokes, causing Susan to become defensive. 'You mustn't make jokes now – he's sick.'

Laughing, Koos replied that 'Josh and I were terribly sick the other day [with a debilitating stomach bug] and we laughed all the more... OK, before we get started [with the preparation of medicine] I just want to play a bit for you.'

And so Koos, reaching above his head, brought down his guitar down from its place on the wall and played an instrumental piece of 'Karoo Blues' which had us all quiet and relaxed. After the music, it was time to go into the consulting room. Sometimes, though not on this occasion, Koos precedes his and his patients' entrance into his consulting room with a little theatre. He knocks on the closed door of his ostensibly empty waiting room as if there might be someone inside to answer. He waits a few seconds, catching the eye of his patient. Then, as if by magic, the padlock on the door falls open in Koos' hand. "The man says it's ok to come in," he says, alerting his patients to a presence of some kind inhabiting his work space.

We all – Koos, Jan, Susan, and myself – filed in to the herby atmosphere of his small consulting room. We sat down, somewhat crammed in, on the soft couches.

Koos' confusing approach

It is not for nothing that people often refer to Koos affectionately as 'that old *skollie* (hooligan/joker)'! He is well known as a story teller, an exaggerator extraordinaire, regularly telling his patients that he is nothing but a '*kans vatter*,' a 'dumb man'. Jokes and stories are intractably part of his presence, and it is unclear to me how conscious he is of the effects of his humour on his patients. He's not one to reveal all his secrets so easily! On the one hand, his jokes are just *jokes*, part of his charisma, but also a way of lightening the atmosphere, helping his patients relax into his divination and treatment.

To this end, he often begins his sessions with a song, some music expertly sung and played on his guitar. He also often gives his patients a wad of the dried and fibrous *kougoed* to hold in their mouth. Its bitter juices have an intoxicating, sometimes drunk-like, relaxing effect, also contributing to an atmosphere conducive to laughter and ease. These things also, according to Koos, help 'open their spirit' so that, as Koos likes to say, 'we are all in the same *ritme* (rhythm)'. What I think he means by this is that people think with and go *along with him*, with his diagnosis, and with the various kinds of medicines he prepares.

As discussed above, this is an especially important skill when dealing with winds that result from and or cause the nerves of the stomach to be 'worked up', sometimes an indication that the wind itself has become 'brave,' has 'stood up.' For Jan, and for other of Koos' patients, the fact that Koos is able to cause winds to hide or 'go quiet' like this is an indication of both his abilities and his *krag* – that his *krag* is able to withstand and hold back the *krag* of their attacker. In this work, Koos is putting himself

in danger for the more he works, the more he is known to malevolent persons, the more they are likely to identify and attack him, interfering as he is in their intentions. And so, in this ‘totally combative situation’ (Favret-Saada 1980: 27), Koos protects himself and his home with different roots and other objects. For example, he hangs strips of pig fat from the ceiling of his house because ‘the pig isn’t scared of anything, it just puts its head down and charges.’ Thus, its fat, the most *krag* *vo/* part of it, would knock back any *toor* sent to his house. This helps to make sense of Jan’s rubbing of pig fat on his chest, described above: he was hoping its *krag* would challenge, quell, and quiet the wind in his chest.

This is also why, Koos explained to me, he never looks directly into his mirror when divining since, just as he can see through it the face of an attacker, they can see him. When he is not using it his mirror always faces down. Such battling forces are also why Marianna, whose father was a *kruiedokter*, is fearful of taking up her father’s craft – scared that her own *krag* would not be up to the attacks she would inevitably face. But perhaps more importantly for us at this point in Jan’s story, Koos’ patients know that *toor* is a question of opposing, affective forces. They know, or guess, therefore that Koos must have considerable *krag* of his own since he is known to have healed many people and has not yet succumbed to the unavoidable attacks that being a *kruiedokter* invites.

On the other hand, in the face of Koos’ jokes, his patients, as did Susan, often become insistent that Koos really knows what he’s doing, that his medicines *will* work. Is Koos here playing cheekily with what Michael Taussig refers to as ‘the public secret’ (Taussig 1999), thereby deriving curative efficacy through touching on the tense limits of his patients’ credulity? Do people, although they know that *kruiedokters*’ tricks are just tricks, nevertheless go along with them so long as the *dokter*’s performances are powerful and efficacious?

This is certainly possible. Koos knows that his patient knows that *he knows* that there are plenty of disreputable *kruiedokters* out there. Joking that he is nothing but a ‘chance taker’ adds an edgy frisson, in a context where not insignificant amounts of money are in question, to the laughs that his jokes often raise. ‘Is old Koos lying to me?’ ... ‘Is he really a dumb man?’ they wonder. And with his jokes I think he *is* testing the limits of his patients’ belief, in this way – as long as his gamble pays off – reinforcing their faith that he knows what he is doing. On occasion, his jokes, I know, have caused peoples’ faith in him to waver. They complain that he is “too ‘nevermind⁵³’”, his jokes undermining the seriousness of their condition. Such a possibility is the very risk he is taking in his approach to his patients and it is through this risk that he, in part, derives his *krag*. For he is asking them to buy in to

⁵³ This being the English word that people used to describe Koos on these occasions.

his work, entrusting him to successfully pull off the performative acts upon which their healing (partly) relies. Being there in his consulting room, there is a good bet in most cases that his patients will already have – at least to an extent – ‘bought in’ to his knowledge and skill. Often he will see something in their life, in their body about which they have not told him and then *immediately* refer to himself as ‘the dumb man’ who knows nothing. The only way for those of his patients – those who have bought in and accepted his prophetic abilities – to reconcile the first Koos with the second, is to mark his comments as jokes. For surely only a truly knowledgeable man could profess to such stupidity. Indeed, in invoking the presence of *lewende* Jesus as the real curer of sickness, Koos in a sense clears his own responsibility for the healing that will take place – no matter how stupid he claims to be, he is merely channelling a higher power that his patients will not doubt.

And yet, my suggestion is that the aim or the effect is not just to reinforce his patients’ belief in his abilities – to have them go along with him and his (or Jesus’ via Koos) healing krag. For despite everything, he *has* uttered the words ‘I don’t know what I’m doing, I’m cheating you.’ The atmosphere is infused with a tricky, slippery edge. In putting people off guard in this way, he opens up an atmosphere of possibility – of some uncertainty, where everything is not settled, where, perhaps, whatever is ailing his patients is no longer a dead certainty, where there *could* be a solution. This, I believe, gives his medicines a better chance to do their work, to cut the sorcerous bonds which bind, to open peoples’ paths to a better future. Although I was only ever able to garner long-term, in-depth, first-hand experience of Koos’ work with his patients, I have heard many stories of the tricky, slippery nature of kruiedokters, this propensity being held as closely linked to their potency, or krag. Perhaps the most spectacular are the stories surrounding Willem Berend, a famous and potent Paulshoek kruiedokter (mentioned also by Fiona Archer 1994), a generation ago. So the stories go, he would ‘see’ that ‘*vuilmense*’ (dirty people, messing with toor) were coming to visit him and so would turn himself into a baboon or even a bush in order to avoid their attentions. Not knowing he was a bush, people coming to see him would ‘piss on him!’ said an old friend, bursting into hysterics. On another occasion, I heard, he ‘put something’ in his unsuspecting friend’s pocket so that ‘the girls were all over him at the dance.’

Divination of the form and cause of affliction

Key to most consultations with kruiedokters, including Koos, is the revelation through divination of the *form* and also the *cause* of the affliction. Sometimes this is something and or someone of whom the patient is already aware and concerned. Especially when it comes to symptoms, Koos is skilled at reading people, knowing what it is that ails them, normally *before* they tell him. He knew, for example, that I have an ongoing issue in the upper right part of my back, mentioning this to me on one of our

earliest meetings. In regards *causes*, it is the kruiedokters' role to name and identify these, in this sense to *prove* this thing as the cause. Perhaps someone of whom his patients are already suspicious uttered something the patient took to be indicative of their will to knock them or their loved one off of their proper path of life:

'You will never get that job.' 'Your child will never make it to college.'

At other times, the kruiedokter points to something that, although you were not aware of it at the time, is actually, you realise upon the suggestion, the cause of your affliction. Perhaps, for example, you picked up a '*natuurlike*' (natural), i.e. non-toor wind, whilst out walking in the *veld* the other day. Importantly, the fact that this thing is the cause, or that person is the attacker must *make sense* to the patient. For example, Jan, back at his home, told Susan and I that he didn't remember having the dream about the meat. Susan said Koos had said Jan might not remember the dream, but that his was indeed how he'd 'dreamt it in.' Such a dream seemed like a reasonable explanation to them, and besides, Koos was the only one who could still Jan's wind and so they had no reason to doubt it as the cause. As to the *origin* of the dream meat, together, Koos, Susan and Jan had long ago decided that this had to do with long-standing inter-family⁵⁴ tensions.

Sometimes such knowledge is seemingly pulled 'out of thin air' as the *dokter*, reading their patient with the aid of the tools of divination, gives a specific name to the cause. The *dokter*, for example, might spot that there is a malignant *xaimpie* planted outside the patient's home, its poison blown into the house when the wind is in the right direction. In a typical example, dangling his set of beads between thumb and fore-finger over the little mirror on his work table (see fig 26), Koos might cast his eyes over different regions of his patient's body, keeping an eye on the swing of his beads. If the beads begin to swing in a circle, something is wrong at that point of the body. Then he might ask himself, or out loud "what is this, *Godsiekte* or *toorsiekte*?" A circular swing again indicates toor. Following the same pattern, a series of questions might lead to the identification of the source of the toor. For Koos, it is God that moves the beads in response to his questions. Whatever or whomever causes the beads to swing as they do, they act as an hypnotic lure: those in Koos' consulting room fall silent and concentrate their attention – as does Koos - on this movement and this (in)famous

⁵⁴ Given that people's tensions, rivalries and disputes are often widely known throughout the interconnected villages of the Kamiesberg, given that I want to share this thesis with people there, and given that I want to avoid causing any more tensions, I cannot give any more details than this.

kruiedokter practicing his art. At other times, the kruiedokter may venture a few guesses, going from the very general, honing in on the particular, depending on the patient's responses:

Dokter: 'Ah, I see you have problems at work?'

Patient: 'Yes.'

Dokter: 'And recently you were drinking with some guys from work?'

Patient: 'Yes, I was'

Dokter: 'And someone was there you have been arguing with?'

Patient: 'Yes, he was'

Dokter: 'It is that person who slipped something into your drink, that poison is making you act in strange ways, making the wind that is giving you pain in your stomach.'



Figure 26. A kruiedokter divining by swinging a set of beads.

Co-opting the 'sheet of time'

Ostensibly, such evidence offered by kruiedokters functions in much the same way as the NMR fingerprints or little helminthic worm corpses in Nicolas work: tangible proof of a cause. On closer consideration however, they are nothing of the sort. The little forms *vuilgoed* take, the swing of Koos' beads arrive, precisely, without the chains of reference Nicola so diligently built up so she could claim, objectively, that those bioactivities, those little NMR and LC-MS spectra peaks derive from something in particular species of plant in a particular region of Namaqualand. No, this evidence offered by Koos and other kruiedokters arrives – without this verifiable chain of reference – 'magically' in his consultation room. The situation may or may not be as the *dokter* claims - and it is up to the patient, because of the reputation of the *dokter*, the patient's hopes for a positive outcome, the atmosphere of possibility such events take place in, for the patient to place faith in the evidence and the *dokter* presenting it. Truth in these circumstances is, echoing Nyamnjoh's (2001) point above, is, to an extent at least, consensual - but no less real and affecting and potentially life changing for it. It is real, or expresses reality in another way, it is own mode.

Whether or not the form or cause is already known, the *kruiedokter* identifies and makes clear and concrete the event about which the ailment turns. In this way, patient and *dokter*, co-opting the causal thing and or person, participate in crafting something akin to what Deleuze terms somewhat opaquely ‘the sheet of time.’ Here succinctly paraphrased by Slavoj Žižek, this is ‘a traumatic point in time, a kind of magnetic attractor which tears moments of past, present and future out of their proper context, combining them into a complex field of multiple, discrete and interacting temporalities’ (Žižek 2012:28). It is around this event that people’s path of life has been turning. At least in relation to the ailment, the past is defined by it, the present is poisoned by it, and the future cannot escape it. If the patient was not already aware of this, they now are. In particularly serious cases of *toorsiekte*, paths do not just turn in on themselves back towards this event, but are entirely blocked by it – time for those thus afflicted stops entirely and people can become, as people sometimes say, like ‘a baby’, or even in ‘a coma’. Through concretizing the event into a particular cause, and particular ‘things’ around which problems turn – i.e. the attacker/*giff*/wind – a concrete solution is likewise crafted.

Here I would suggest that such processes of ‘crafting’ as I’m calling them, involve form-making processes that lie, conceptually, somewhere between Aristotelian hylomorphic creation and the kind of mutual engagement of creator and creation in an on-going process of becoming as argued for by Ingold. Ingold has argued consistently and convincingly against the hylomorphic notion of creation – of form imposed on inert, raw matter - which he quite rightly argues lies at the heart of modern conceptions of production and culture (Ingold 2000, 2011, 2012). Following Deleuze and Guattari , he is essentially right that matter is always in flux and variation and so whenever we encounter it, all we can ever do is follow it, such that ‘Artisans or practitioners who follow the flow are, in effect, itinerants, guided by “intuition in action” (Ingold 2012: 433). As they go with the flow, artists, molecular biologists, and I would argue *kruiedokters*, ‘bring out’ what was already there, in *potentia*. Patient and *kruiedokter*, along with received and established ideas about and experiences of winds, work to concretize a range of intangible and tangible phenomena into a form that can be effectively addressed. There is a tendency, however, in Ingold’s work, to deny foresight or planning in creative processes, giving almost total precedence to silent intuition riding material flows toward the seemingly spontaneous emergence of things.

I would argue that the taking up of a position outside of things in order to plan a course of action may well be an artifice of sorts but if it is it is not the special preserve of ‘Western’ minds to do so. It is, rather, a useful and vital way in which humans beings are able to take account of prevailing circumstances (such as a magical attack), envision alternative circumstances, and work towards

moving from the former to the latter. Neither is it necessarily at odds with the kind of co-respondence Ingold argues for in the forming of things. Since envisioning is a practical something that we do, it too runs up against the materiality of the world as we try to bring that which we see in our mind's eye to some kind of physically relatable presence.

Following Latour (2011b, 2013), I am suggesting something akin to Etienne Sauriou's notion of 'instauration' to capture this sense of intentionally making that which is already there – the sculpture in the sculptor's block, tensions in human relations, the molecule in a leaf – but which requires work to make it be present in a way it has never before been, i.e. in the form of the vital concept of wind. Although I like the sentiment of the word 'instaur', it is rather an awkward, academic term. Instead, I see no problem with using the term 'craft'. With the one proviso, nevertheless, that this be distanced from the common contemporary associations with 'handicraft', in turn itself associated (rather unfairly) with semi-skilled hobbyists and so on. No, craft, as a skilled, expert practice, sometimes with no small supply of guile, captures the sense of the word I use here and no doubt relates to its use in the term witchcraft. Once crafted into significant presence, such things become more than the sum of their parts and reflect back and act upon the flows, materials, forces and practices from whence they came: that is, the 'sheet of time' mentioned above around which a person's path of life, their becoming, is turning. In 'wind' people draw on an ecologically derived and vital concept which is both powerfully evocative of the living world and evocative of the power of that world. This makes sensually apparent that something 'is not right,' and then – hopefully - sensual, physical evidence that what was inside, has come out. To return to Jan's story, Koos was busy mixing the medicines that we all hoped would help Jan out of his predicament.

Back to Jan's village, back to Koos' place (again)

It did not take long for Koos to mix together a few different kinds of plant, animal, and mineral-based medicines for Jan to take home with him to boil with water and drink at regular intervals. We were soon back in my *bakkie* on our way home. Both Jan and Susan thought Koos had done '*groot werk*' (big work) today. Even though he was bringing up lots of wind – burping almost constantly all the way back – Jan said the wind was '*stil*', quiet, and it wasn't making that gurgling-creaking noise in his chest, nor was it tightening in his chest, stopping him from breathing properly as it had done before.

Clearly worried about him, Koos had asked me to check up on Jan and report back to him on his state of well-being. So the next day – Christmas Day 2012 – I went to visit Jan and found him in better spirits, talking about his plans to find work in the following months.

The wind, unfortunately, did not stay quiet for long.

Around 11pm I was home alone in Timm's house, on the phone to my family in the UK, wishing a merry Christmas thousands of kilometres away. Unexpectedly, there came a knock at the door.

It was an older relative accompanied by a young friend of Jan's. 'Jan is really bad,' they said, looking very concerned, 'he looks like he's dying, can't we go now to see Koos?' Feeling tired, and still suffering from the stomach problems mentioned by Koos, above, I asked 'can't you send for an ambulance?'

'Agh, those people can't do anything,' came the unequivocal response. 'He [Jan] went to see a big professor [specialist] and nothing!'

I agreed to help and found Jan, accompanied by Susan and Marianna, at his grandmother's house, again sitting in the kitchen. He had bandages wound in thick layers round his feet. His feet had swollen up and gone blue, Susan and Marianna told me, so they'd smear-massaged them with vaseline, vinegar and garlic in an attempt to 'work some of the wind out.' Jan's shirt was half off, with only his right arm through one of the sleeves. He had a tourniquet round his upper left arm since, he said, this stopped the 'thing' from moving around into his arm. Everyone in the household, including Jan's elderly grandmother, was awake, and looking very concerned for Jan.

Susan, Marianna, Jan and myself were soon on the road. Once again, the moment we were on our way to Koos', Jan began to feel much better. Marianna begun recounting similar instances of kruiedokters' patients. One even, whom, she claimed, 'would drop down dead' if he were to stay away from Koos too long, so troublesome would his wind become.

By the time we pulled up to Koos' place, it was well past midnight and everything was dark, everyone was asleep. Knowing my close relationship with Koos, Susan and Sarah 'kindly' volunteered me to go and knock on the door. After a couple of attempts, Koos came to the door, bleary eyed.

'Sorry, *oom*, for coming so late, but Jan is so sick they felt like he might die.'

'Ja, but they needed to come, bring them in.'

We all filed in and once more sat down in the living room. We discussed what they thought was the cause of Jan's terrible turn. That morning, during the Christmas church service, they'd all seen how Jan's attacker had 'watched' Jan intently the whole time. His stare had been so intense, so overwhelming for Jan that he'd had to leave the church. It was no surprise that the wind had become so brave. Susan and Sarah shared stories of Jan's attacker's misdeeds against other people.

Koos stared at Jan for a while, Jan by this time looking much better.

Koos opened his consulting room and we all filed in.

Koos used the mulling stone in his consulting room to mix - among other things *!noro buchu*⁵⁵, *witvergeet*⁵⁶, *rooistorm*⁵⁷ and what looked like *dassiepis*⁵⁸ – into a snuff. As he was mulling, he would pause, knock on the stone, and kind of listen for a moment, as if he were waiting for an answer as to what he must put in next. He took out his rattle – formed from the gourd of a non-local plant - and shook it at the medicine a few times. ‘That’s to make the people believe my lies,’ he said, shooting a wink in my direction.

As he was preparing the medicines, Koos wrapped a multi-coloured scarf around his head and gave Jan some white substance to suck on – probably a kind of *bomeester*⁵⁹ - which had helped with Jan’s wind. Marianna later remarked that ‘he is really working hard and strongly when he wears that [scarf].’

With the medicines ready, it was soon time to go and so we said our good byes and climbed back into my *bakkie*. Jan looked and sounded much better, even making some jokes, and burped all the way back.

Jan was well for a while but before long, a few weeks at most, the wind was back, choking him in the night. He went once again to see and stay for several days under the – literal – protection of Koos. Yet, once again, distant from the presence of Koos, Jan’s wind became brave and begun choking him in the night. Realising he was not going to be able to completely cure Jan, Koos referred him to another kruiedokter in Vredendal. This *dokter*, with different medicines –those which grow near the sea, according to Koos – was able to still Jan’s wind to the point that Jan was able to do paid work. When I visited in April 2014 Jan, now ‘mildly, and only sometimes’ troubled by his wind, was planning on starting a small business in his home village. Neither Koos nor the other kruiedokter have been able to completely ‘kill’ the wind but it has become sufficiently manageable.

Winds and ecologies of (un)wellbeing

The life, behaviour and ‘personality’ of Jan’s wind is bound to the complex of human-non-human bodied inter-subjective relations of krag, wind and personality within which Jan is enmeshed. In chapter one, I pointed to the recent rethinking of ‘animism’ as a useful way for considering how, in

⁵⁵ A sweet smelling green-leaved plant.

⁵⁶ A thumb-thick white-coloured root.

⁵⁷ A red-coloured root.

⁵⁸ The black, solidified urine of the rock hyrax.

⁵⁹ Literally ‘top master’, a pale-coloured mineral deposit used for many ailments in the Kamiesberg.

their interactions moving along paths of life, the subjectivity of humans and non-humans – such as Jan’s wind – are *revealed*, rather than ‘projected’ on to, others. This, I suggest, is more or less an expanded version of a Marxist dialectic. For Marx, subjectivity is not an ontological given, as it was for Descartes: rather, it is in human practical life, in our on-going engagements with ‘nature’, us acting upon ‘it,’ ‘it’ acting upon us, that human subjectivity is born and finds form (Morris 1991). It is in these ongoing processes of life that humans are made as conscious and bodied beings. In other words, where Marx was interested primarily in this relational source of human bodied subjectivity, ‘animists,’ according to recent anthropological rethinking of this term, are interested in the relational source of all subjectivities, all personhoods that the ongoing processes of life engender and reveal. Winds emerge as sometimes conscious or conscious-like tensions in this pathwork of relations – the ‘current of becoming’ - that settle in the bodies of the afflicted. The role of *smeervrouens*, through smear-massage, or *kruiedokters* through a combination of approaches, is to address, calm, smooth, even kill this tension from the point of view of their patient. It is these kinds of tensions, cross-cutting natural and cultural domains, that people – as did Susan, above – claim ‘*witdokters*’ (‘white’ doctors, biomedical doctors) cannot address.

Such winds aren’t ‘just’ these relations, though: Jan’s story has shown how different elements – e.g. inter-family tensions; dreams of being strangled; his attacker’s fierce stare; strange palpitations and swellings; a context where wind exists as a readily available, ecologically-derived vital concept, and the diagnoses of a *kruiedokter* - can come together in an actively constitutive process such that one can say ‘*toor is ‘n wind*’ (toor is a wind). As a slippery, polyvalent term, wind associates ostensibly disparate phenomena – strangely moving bodily sensations and pains, current or past social tensions, blockages of the blood vessels or bowels, the blustery nature of wind - under one umbrella term, what Helen Verran might refer to as a ‘vague whole’. The parts will never add up to a whole, coherent picture but this does not mean ‘wind’ has no use as a concept, no presence as a ‘thing’ (Winthereik and Verran 2012: 41). Crafted into being, I have claimed, such ‘things’ become more than the sum of their parts and take on a life, a consciousness, which is (partially) their own. Thus, Jan’s wind, or evil spirit, closely associated with the personality of its sender, acts against Jan and ‘hides’ or ‘stands up’ depending on where Jan is, what he’s doing. Jan is bound up in destructively animating relations – relations which lure him away from himself – not just with the *kwaadaandoener* and his poisons, but also with the wind itself. To reiterate points borrowed from Deleuze and Guatarri and Stengers in chapter one, since Jan is only alive, only animated because of being from the start immersed in the relations that constitute him, he does not so much *have* the idea of the wind ‘inside’ of his mind, as this relationally constituted wind *has him*. This is precisely why, therefore, Koos and other

kruiedokters work not only their patients' bodies, thoughts and feelings, but also on cleansing their homes and relationships too.

While Koos aims to protect and cleanse Jan, he also attempts to lure Jan away from these destructive relations, into different ones that aim at being a counter-force to those which had clearly 'caught' Jan so tightly. Chief among these is a relation with Koos himself. Koos' whole 'performance' combined with his reputation and his previous stilling of Jan's wind draws Jan toward his sphere of influence: Koos' jokes and sense of theatre; his skill at cultivating a warm atmosphere of possibility; his 'reverse' ways of convincing Jan of his abilities and his krag; his skills at reading his patient, preparing his medicines, and declaring a cause which made sense to Jan and Susan; the bitter taste of plant medicines and their pharmacological effects; Koos' reputation; the cleansing feeling of breaking wind and burping. And of course, in placing himself in the midst of relations of krag and wind, Koos takes danger upon himself on behalf of his patient: a danger that Jan is aware of. If he is able to protect his patient so that the wind becomes still and quiet so that he or she becomes once again strong enough to take on the 'attacks of the Devil,' so that the 'sheet of time' no longer turns his patient's life in upon itself, then he has been successful in his work and may be considered a 'genuine,' a real kruiedokter. All these elements, and many more, I'm sure, contributed towards Jan's confidence and trust in Koos, and his wind's shyness and stillness in Koos' actual or expected presence.

Yet it is not just into relation with himself that Koos lures Jan – he also, importantly, evokes the presence of '*lewende Jesus*', a committed faith in the presence of the Lord: the Father who put the medicines in the *veld* in the first place, who gives them their healing powers, who gives people their daily krag, who rejuvenates one's *gees*, who opposes witchcraft in all its forms; without who's grace and knowledge, Koos says, he would know nothing at all. Sometimes, Koos peppers his consultations with a lilting little refrain: '*lewende Jesus maak siektes gesond*,' (living Jesus cure sicknesses) in this in a way, again, evoking His presence in proceedings. In fact, all of the protective, cleansing presences that his patients encounter at his house, in his consulting room, aim at drawing his patients away from the destructive relations that have drawn them away from themselves. It certainly helps that Koos behaves in a way that suggests the conscious awareness of many of these presences; and, in that very suggestion, invokes active person-to-person-like relations between patient, 'place' and 'thing' - his little theatre with the padlock, his knocking on the stone and waiting for an answer, being good examples of this.

On other occasions, Koos also makes more effort to emphasise the krag as well as person-like qualities of the plants he prepares for his patients. For example, he often gives his patients, during consultations, a taste of the medicines he is preparing for them – particularly the exceptionally bitter

or sour-tasting ones. As well as simply doing this for their interest, for a bit of fun, this introduces his patients to krag of the medicines, making it clear to them that the medicines they are getting are 'strong'. Sometimes, he prepares *xaimpies* or medicines to be burnt around the house, to cleanse it of dirty presences, to send the toor back to its sender. In these, he often includes 'fighting roots' – roots of especially powerful plants. Such fighting roots, as Koos called them, include the 'storms' – *rooistorm* (redstorm), *witstorm* (whitestorm), *swartstorm* (blackstorm), and *David se wortel* (David's root). The term 'storm' here, in Koos' description, likens the roots' krag to the cleansing tempests of the sea. As Koos explained, in a trial and error style common to his work:

Each has its purpose but they help each other... Say for example, someone comes to fight with us and we are three, then we are stronger. You put a little ...⁶⁰ and the ...⁶¹ with them, just so that they can get some krag to fight that guy back ... if you see that [with the] *rooistorm* he [the patient] is still held tight [by the toor] then you put the *swartstorm* with it, and you see 'no...wait, wait, wait I must now put the *witstorm* with them' and if he is still held tightly [by the toor] then you put the *David se wortel* ... so, like they say, to hold him [the attacker] back.

These are metaphors, and they are not metaphors, at the same time – these are plants with spirits, an ability to act against the *kwaadaandoener*, and with the patient. They are *allies*. They are presences that his patients are, again, drawn into relation with: the krag of which are not entirely internal to the bodied-mind of the patient, but not totally external to them, either. At still other times, Koos might give his patients a little piece of a powerful root to carry around with them that acts as a link between Koos' attention and spirit and those of his patients: when the patient is attacked, perhaps in a dream, Koos can intervene and defend them.

All in all, with his use of cleansing and protecting medicines, his ability to in a reverse sense convince his patients of his skill, his attempts to lure his patients into an alternative set of relations with presences that might act as a counterforce to those by which they have been 'caught', Koos is sometimes successful, sometimes not, sometimes somewhere in between. But Koos does not exist in the same way that a wind exists, a pharmacologically active compound exists, or Jesus exists – these are very different modes of existence we are talking about, different kinds of relations drawn upon for different, though often interrelated purposes. In my conclusion, I turn back to Nicola's work and to the questions with which I begun: how can we think and write about plants as used and known by

⁶⁰ I don't want to reveal too many of Koos' secrets here.

⁶¹ Again, I don't want to reveal too many of Koos' secrets.

kruiedokters, and those investigated by molecular biology, in ways that hold these on an equal footing, without reducing one to the other, and without falling into the hole of relativism?

Conclusion

In addition to my own interest in people, plants, landscape and well-being, this project was stimulated by the tense relationship between scientific and so-called traditional⁶² knowledge in South Africa in 2009. My hope was to conceive of a thesis that might encourage thought that could escape the familiar and stultifying modernist dualisms that were setting the terms of deadly wars of polemic around traditional medicine. Such binary and bounded thought repeatedly took the form of debates and accusations tied to claims and assumptions of traditional medicine as dangerous obscurantist cultural practice against enlightened science as privileged access to universal nature. Others held traditional medicine as true, whole and natural knowledge against scientific knowledge as the cynical invention of a profit-hungry, racist Western pharmaceutical industry. In the form of Mbeki's stance on HIV, in promoting untested remedies, in too slowly providing proven pharmaceuticals, such binary and oppositional thought had led to a great many unnecessary deaths and perhaps understandably led many to be suspicious of any health-related knowledge that did not come with a mainstream scientific seal of epistemic approval. Yet, in order to forge futures not identical with the catastrophically successful model of global capitalism, it was and is a necessity for South Africa, and all former colonized nations, to find paths toward finding epistemic, and ontological, space for both institutionalized science *and* formerly denigrated knowledges. In fact, this is true also of the former colonizing countries, and of humanity in general.

This because it is impossible that humankind, having endured and flourished for tens of thousands of years, had only uncovered worthwhile knowledge in Europe, sometime around the seventeenth century. Framing dominated people's ways of knowing the world as primitive superstition and belief was central to colonial and apartheid divisionary techniques of power and dominance, as well as to the establishment of capitalist social relations and modes of production in the European nations. Any kind of just future for South Africa and much of the world would require that the epistemic order of things be addressed, challenged, and radically re-envisioned and re-composed. Similarly, there would be a need, remembering arguments as to the interwoven nature of *how* we know, and *what* we know, advanced in chapter one, for a reconsideration of the beings and existents that these techniques of

⁶² See footnote 1 on the use of this term.

power and dominance also consigned to the scrap heap of history. However, in order to move past simple oppositional assertions of the moral/cognitive/truth value of this or that form of knowledge, to move toward the necessary kinds of epistemic spaces, fresh thought was (and still is) needed.

Becoming involved in a project that would simultaneously follow what molecular biologists do with plants and what *kruiedokters* and other knowledgeable people do with plants seemed a perfect opportunity to make a contribution towards this end. Unfortunately, unforeseeable events and practicalities meant that GIBEX STN kits would not feature as unifying points of attention upon which the knowledgeable interest of these varied practitioners might be focussed. However, the collaborative construction of the AZEF poster (fig 8) led to a new set of questions to which I have addressed this thesis: if realities are 'done in practices', what kinds of realities and 'things' are being done as *kruiedokters* and molecular biologists work in their own ways with plants (Law 2007: 17)? How might these realities – and the similarities and differences between them – be researched, understood and described in ways that rely neither on absolute relativism, nor on one kind of reality trumping all others?

As I became involved in the on-going processes that could potentially help me answer these questions, I noted that there certainly were similarities that crossed the work of both of these sets of practitioners. Both sought to use plants to effect positive change in human life, and both employed trial and error experimentation to do this. Both held there to be something in or about the plants that made their aims realizable. Both recognised certain kinds of either metabolic, or *krag*-like, healing potencies and potentialities associated with the ecological life strategies of the plants involved. Both sought to make a living from their plant-related knowledge.

And there were many differences, too, not least because I wasn't comparing like with like, doctor with *dokter*: while *kruiedokters* focus on healing patients directly, Nicola focussed on research that might allow others to do so in the future. In large part because of the racialized, exploitative, unequal South African past and present that the Kamiesberg has been tightly entangled with, there were huge differences in resources available to each. And partly because of this, there was a more immediate, pressing need for *kruiedokters'* plants to effect positive change in the lives of their patients than in the more long term aims of Nicola's project. Perhaps the starkest difference, and central to *kruiedokters'* work, is their ability to draw on plants' qualities in order to work in realms and with and against beings that do not fit easily into scientific paradigms: that is, unseen human or non-human, personalised attackers that can affect their victims with their malevolent intentions at a distance; and loving, protecting persons and beings that can counter these.

As I showed in chapter one, Euro-American scholarly approaches to comparable phenomena (including those studies carried out in and around Namaqualand), have, for centuries, attempted to make sense of, rationalize, and explain such beings and realms in terms that closely mirrored the same dualistic thinking I was hoping to escape. In this spirit, Tylor and Frazer could only conceive of anything that smacked of 'magic' as 'failed science.' Yet as ethnography and anthropology became more sophisticated, key insights into the fundamentally relational nature of human beings were drawn from working carefully and closely with people outside of the cosmopolitan centres that most anthropologists called home. These studies showed that everyday interactions, and the shared use and invention of signs and symbols, forged individuals' bodied-consciousness, just as in the same moment, the individual forged society. 'Magic' and 'witchcraft' could be seen to be real, having real effects on human lives, to the extent that it circulated in this powerfully affecting realm of human meaning, symbol and affect.

Alongside postcolonial and postmodern critiques of modernist claims to objective knowledge, anthropologists' insights led to the emergence of powerful deconstructive tools. Tools that could undermine the reified, *sui generis* existence those in power granted to terms and concepts that aided and abetted their grip on power but which deconstruction exposed as relational, and political, in character. As Marx had done for capitalism in showing that it masks as objectified commodities what are in reality products of unequal social relations, deconstruction could do for terms like 'tribe,' 'race,' and 'culture'. The deconstructionists' dilemma, however, is where, and by what measure, deconstruction ends and the world 'as such' begins. Does one decide that that which does not accord with the world as understood by scientific technique is a construction? This, by default, simply reinforces the claim to superiority of modernist objectivity. Or, as some postmodernists argued, is scientific knowledge itself a social construction? This makes the many successes and achievements of science hard to understand.

This is where theorists, myself included, taking strong cues from 'indigenous' ways of knowing the world, have found great use for perspectives that extend relationality beyond the human construction of a mute and a-social world. Acknowledging that animals, plants, 'spirits', molecules, networks of instrumentation play active, though not necessarily determining, roles in the production of human knowledge of them, changes the terms of thinking. It relocates human beings not as isolated, observing consciousnesses, but as always and by definition in the world of everyday experience, of struggling and searching for different ways to find reliable purchase in it. Just as humans act upon the world as they do this, so the world acts on them so that knowledge is always a two-way street whereby the object we point to as 'nature' is more accurately conceived of as 'nature-culture.'

Certainly, we interpret what we find in different ways, but these are not completely independent of what the world offers up to us. And since nature-cultures necessarily require networks, or ecologies of interconnected phenomena, human and non-human, to persist as they do, the reality of the factishes they produce is likewise extended through the suite of relations that constitute them. When applied to the experimental techniques of the natural sciences, in the form of ANT and other STS approaches, a relational perspective is able to both *specify* the particular kind of exceptional achievement that this represents *and* affirm and even expand the reality of the knowledge produced in this way. This also suggests that the difference between what molecular biologists do with plants, and what *kruiedokters* and other knowledgeable people do with plants, is not best understood in terms of the difference between nature and culture, science and tradition: both these (imagined) domains are intermingled in the knowledges produced through both these sets of practices. In following and thinking Nicola's work, the plant-based bioactive compounds she was able to describe with such precision – detailing the very order of the atoms that compose them – could have been viewed as the quintessence of the value-free fact at the centre of contemporary materialist or physicalist metaphysics: an expression of nature in its most naked and pure form. However, paying attention to the *processes* actually involved in the uncovering of these structures tells a different story – the kind of story that the ethnographic method is apt to tell, crossing many different natural-cultural domains in the movement from plants in the *veld* to representation of molecular structures in a PhD thesis.

Nicola's selection of plants was based on a particular understanding of health and illness, with an ultimate aim that the bio-active compounds she sought could be turned into reproducible pharmaceuticals to address human health related issues. In order to achieve these translations, as we saw, a veritable ecology of established chemical theory and data, infrastructure, finances, instrumentation, fridges, solvents, and Nicola's own practical skill, was needed to translate living organisms into stable powders and testable slurries: all of which attests to and must be included in the weight of reality afforded Nicola's compounds. Without these techniques of research and analysis having found ways to reliable purchases in the world, and enrol aspects of the world to its purposes, there would be no use for the immensely expensive equipment involved, no gigantic corporations that biologically active pharmaceuticals have given rise to. Nevertheless, such techniques remain *particular* ways of finding purchase, *particular* ways of enrolling the world, and *particular* ways of measuring, observing and constituting the world according to the theories and machineries available. Maps and models, no matter how exceptionally accurate, of plants studied and known from any perspective, can never be the thing the map points to, precisely because maps must exemplify certain aspects of the world as relevant, and others not. I suggested that the universalized, undergirding matter of modernist metaphysics is a product of conflating the very effective kinds of *map-like* chains

of references Nicola was able to tease from the world, with a transcendent mode of existence that encompasses the entirety of the world *itself*.

If the world is not equated with science's knowledge of it, however, this opens a vital 'space' in reality. A space for modes of existence that are not productively reduced to mind, matter or any law of physics, but which circulate or persist in and through ecologies of relations quite different, though perhaps at points crossing over with (see below), the kinds of ecologies that could give rise to molecular structures described in a PhD thesis. Modes which are nevertheless taken by billions of people to be essential to the wellbeing of humanity and the collectives they inhabit. A space whereby concepts that do not accord with the terms of the modern constitution are not necessarily assumed to be (essentially inaccurate) *descriptions* of a reality already composed and known in its underlying, fundamental aspects. Instead, such concepts are afforded the *possibility* of trafficking in the hard currency of being. I use the word *possibility* quite intentionally because I am making no claims to the actuality of krag, toor, and wind. As stated, it is not my interest to proclaim a belief in the essential nature of the phenomena that these point to – only to suggest ways in which they might be approached that challenge received assumptions as to the *lack* of reality of phenomena previously labelled as 'superstition', and 'belief'. With this thought-challenging possibility in mind, three of the chapters of this thesis have explored three concepts – krag, toor and wind - key to the plant-based work of kruiedokters and the wellbeing they attempt to cultivate in their patients. I sought to convey these in a form that could trace and evoke the experiences and phenomena that these concepts both express and play a role in constituting: that is, along the paths of life in which these live and find purchase in the lives of people in the Kamiesberg.

As with the ecologies necessary for Nicola's molecules to subsist in scholarly modes of argument, it is only with the ongoing life of the necessary material-sensual-practical-metaphorical ecologies of (un)well-being, that krag, wind, and toor, can subsist – i.e. through the relations of which these ecologies are composed, in ways in which kruiedokters, their patients, and others know them. One might think about the work of both molecular biologists and kruiedokters as attempts to set limits to an unknowably complex ecology of interrelations, to render it knowable, and to an extent containable and controllable; and, with a focused attention on certain traces made by the interplay of partially contained forces, understood through distributed networks of equivalences, to make present certain tangible 'things' that facilitate interventions in reality. The logics and aims employed are more often than not very different, as are the ways in which Namaqualand's plants are 'done' in each case. Nevertheless, it is through this kind of local, yet distributed work, that those tangible things - *bossiesmedisyne*, molecular compounds, or living poisons inhabiting kruiedokters' patients' bodies –

find form as affecting and utilizable presences. Without the work of sensitive bodies, skilled practices, discussions, stories, academic papers, and instruments, those things would cease to be present in the various forms they take on.

Addressing the spectre of relativism

And yet here raises the head of a spectre that worried David [Gammon] – if molecules, krag, toor and wind are all things in this sense ecologically constituted, what stops each replacing the other as the basis of reality, depending on whose opinion we seek? What prevents a fall into ontological relativism? In seeking to slay this monster, a first important point, gleaned from the AIME proposition, is simply that there *are* modes of existence beyond mind, spirit and matter, and tonalities, interpretive keys, and felicity conditions proper to the existence and study of each. Just because molecules, krag, toor and wind exist, does not mean they all *exist in the same way*.

Thinking back to arguments advanced in chapter three, four and five, it would make limited sense to study the plants employed by kruiedokters to cultivate a feeling of waxing krag in their patients entirely through a search for the molecular structures that might be initiating certain biological processes. While the health-bringing benefits of plants *can* be understood in terms of their bioactivity, for example, their action against toxic bacteria, fungi, parasitic worms, cell oxidation and the lives of viruses, they can also be enrolled against other kinds of toxicity: the toxicities of jealousy, of toor and the krag-sapping winds these give rise to. Thus, it is equally necessary to pay attention to plants' own living vitality and personalities, their associations with the cleansing, refreshing ecology of *die natuur*, and the opposition of this to people's experience of contemporary town life as polluted and stressful. Then there is Koos' jokes and music in his consultation rooms, the ways in which he prepares, mixes, administers and addresses his medicines, with characteristic flourish, his appeals to *lewende Jesus*, and the ways in which he invokes, evokes and sets himself against toor wind troubling the lives and bodies of his patients.

In many ways, there *are* interesting parallels to be drawn here between recent developments in various medical and scientific fields and the healing facilitated by the skills of kruiedokters. Their skills in convincing their patients of their abilities, to evoke feelings of cleansing, to draw patients toward, through the use of medicines and other objects, humour and personality, protective relations with humans and non-humans alike - all of this speaks to the importance of the relationship between *dokter* and patient, and the patient's overall field of relations, to his or her sense of well-being and possible eventual remedy of his or her ailment. This approximates quite closely to recent clinical

research into and scientific thinking about the 'placebo' effect. For many decades placebos have, write Finnis et al. (2010)

been defined by their inert content and their use as controls in clinical trials and treatments in clinical practice. Recent research [has changed this perception, showing] that placebo effects are genuine psychobiological events attributable to the overall therapeutic context, and that these effects can be robust in both laboratory and clinical settings.

This change in laboratory and clinical perceptions of placebo has been facilitated by developments in fields such as psychoneuroimmunology and psychoneuroendocrinology that have identified physiological links between human nervous, immune, and endocrine systems (Benedetti 2013): that 'what we think, our emotional feelings and our relationships, all interact with the immune system' (Fenwick 2009), affecting the body's response to all kinds of disease. Similarly, this suggests that wide arrays of human experience be considered in understanding how the interconnected mind-body responds in its healing capacities. Sims and Cook (2009), for example, in a volume published by the Royal College of Psychiatrists, point out that 'mystical experiences', or communion with transcendent or ultimate realities as well as with other human beings; and belief in, and relationships with religious beings, have been shown in numerous studies to be linked to positive mental and physical health. They argue for the consideration of both practitioners' and patients' spiritual well-being in the practice of psychiatry.

Similar efforts to join mind and body, culture and nature in science has also become an important trend in the scientific study of medicinal plants. As mentioned in the introduction, various significant voices in ethnopharmacology have in recent decades stressed the need for considering the socio-ecological contexts in which traditional medicines are used and find efficacy. Etkin and Elisabetsky (2005:26), for example, argue, among other things, that the trickiest, but necessary theoretical challenges faced by ethnopharmacologists include striving to understand:

- a. How local environmental knowledge both undergirds and emerges from co-evolutionary people-plant-landscape relations.
- b. How the apprehension and management of resources is culturally constructed and socially transacted in ways that influence knowledge asymmetries and health disparities.
- c. How the multicontextual use of plants (in medicine, food, cosmetics, etc.) impacts health, as well as the conservation of cultural and biological diversity.

They also argue that more comprehensive forms of phytochemical analysis will enable researchers to draw connections between use of medicines and the maintenance and improvement of bodily functions and disease prevention. Perhaps this is something not entirely dissimilar to the ways plants are used to cultivate krag? They encourage further interdisciplinary collaboration between anthropologists and ethnopharmacologists, so as better to understand the 'cultural constructions' of plants and how these relate to use and healing. They argue for greater interest in the ecological conditions in which plant medicine grown and are cultivated for the phytochemical effects of this, and support fairer bilateral agreements between communities, countries and companies (Etkin and Elisabetsky 2005).

Efforts such as these to challenge mind-body, culture-nature dualisms within institutionalised science itself are potential steps toward overcoming historical dismissals of and divisions from, other knowledges, other ways of addressing human health and well-being. Moreover, it is a moral necessity to recognise and attempt to address the past and present of exploitation of people and their knowledge in the practice of ethnopharmacology and related disciplines. These moves suggest that there is still much fertile ground in South Africa and beyond to be ploughed in collaborations between medical science and different knowledges, centring around plants, relations (with humans and non-humans alike), and health and well-being. This potential for fruitful collaboration is almost certainly enhanced by the increasing development of technologies such as NMR and LC-MS used and taken forward by scientists like Nicola - technologies that can offer increasingly complex and nuanced understandings of the molecular processes of bioactive plants. Such technologies mean that more precise models will emerge not just of the bioactivity of single compounds but of the additive and synergistic effects of increasing numbers of compounds in single plants, or in mixes of many plants – more effectively mirroring the whole plants, and mixes of whole plants often used by practitioners such as kruiedokters.

Moves towards complexifying and contextualising understandings of human health also lend support to the arguments of anthropologists, myself included, who have insisted that the efficacy of medicine and healing must be understood in their socio-economic-environmental context (e.g. Cohen 2009, Kleinman 1980, Crossman & Devisch 2002). They also chime positively with classic anthropological studies of healing rituals by Victor Turner (1968), René Devisch (1993), Lévi-Strauss (1949a, 1949b) and others who have emphasised the vital importance of the role that healers play in manipulating and understanding individuals' spheres of relations – and the implications of this for sufferers' well-being.

Such arguments are of particular relevance to the contemporary South African situation. Here, government interest in and plans for indigenous⁶³ knowledge (IK) have, in the past few years, shifted emphasis somewhat away from epistemological questions and ideological trumpeting of 'African solutions to African problems' towards massive efforts to document IK and focus funding on 'experimental research which will lead to technology transfer and patents (i.e. innovation and entrepreneurship)' (NRF 2014, see Hanekom 2013). In the contemporary South African reality where the state seeks to compete in an increasingly crisis and debt-ridden global economy, and where most people struggle to make ends meet within a consumerist economy, it was perhaps inevitable that we would witness the growing commodification, within interlinked informal and formal economies, of medicinal plants. However, removing medicinal plants from the contexts in which they are used and transforming them into abstracted digitized bits of information, pharmaceuticals or commodified objects of capitalist transaction, filters away precisely the living relations in which in many cases those plants find their efficacies, their 'powers' (see Augusto 2008 for a discussion of the epistemic pitfalls of digitizing IKS). In regard to such processes of commodification I would certainly not exclude the work of kruiedokters who work for money and who must buy those medicines they cannot pick or grow. On the other hand, as I have shown, medicines for kruiedokters and their patients derive value from relations not entirely subsumed by those of monetary exchange: relations with landscape, singing frogs, between doctor and patient, with God.

Rigorous and robust medical science, research and theory, learning from and collaborating with traditional medicine, is able to connect the relational dots between patient, medicine, doctor, and social and environmental contexts. In some senses echoing Descartes' use of reason to oppose the dogma of his time, this can offer subversive and persuasive arguments against the tendency of capitalist economy to constantly abstract and 'thingify' medicines as objects fit for commodity relations.

Nevertheless, despite all this, and based on the research and arguments presented in this thesis, I would caution against too hastily assuming that all that is needed in bringing traditional and bioactive-biomedical medicine into communication and collaboration is to join up the relational dots in *one* mode of existence - that is, of reference; or, conflating reference with actuality, of materialism or physicalism. In the work of kruiedokters, objective, representationalist truth is sometimes less important than the relations patients are bound up with, entangled, poisoned and blocked by, and the ability of kruiedokters such as *Koos* to draw them away from these into new, protective, nurturing ones. Krag is not measurable, a thing, but exists and flows in and between relations of patient, (real

⁶³ See footnote 2 on the use of this term.

or imagined) attacker, *dokter*, plants, *xaimpies*, *vuilgoed*, landscapes, political histories and God. The truth of the presence of toor, of a wind, depends to an extent at least, as we saw in Koos' divination (chapter five), on the effectiveness of the proposition of its existence for the alleviation of problems and ailments. Its truth is, to an extent at least, relational and contingent. If Nicola were to claim the same about her compounds, it is unlikely that her PhD would pass muster: without objective references connecting reliably back to Paulshoek plants, hers could not be counted as a successful work of molecular biology. These are different modes of existence but still both are present and of great importance in people's lives.

There is certainly a kind of interplay between the different modes of existence – bioactive molecules, krag, religious beings and experience and so on - that leads to the successful or unsuccessful cultivation of wellbeing in kruiedokters' practices, but no one mode is more *universally* fundamental than the others. It is not a question of 'mind' acting 'down' upon matter, but of ecologically subsisting existences in their own right bearing upon the lives of kruiedokters' patients. Plants are, by their very nature, complex, fascinating and multiple phenomena. They are alive, shifting, sensitive, moving and changing, exhibiting their own kinds of agency; they are chemically dynamic and complex, and also offer to the human senses a rich range of experience in their appearance, smells, and tastes. And it is perhaps partly because of this complexity that they can be enrolled in different kinds of ecologies, and act as a crossing point for many different kinds of relations and the modes of existence passing through them. While Nicola's techniques of study enrolled particular measurable, bioactive aspects of Namaqualand plants, plants used by kruiedokters and others in the Kamiesberg are co-implicated with krag, wind and toor in the form of animating relations that draw on *different* aspects or qualities of *bossiesmedisyne*. Plants play a role in cultivating krag through their own living vitality, and their associations with the cleansing, refreshing ecology of *die natuur*. At other moments, the thought, dream-image or actual presence of poisonous plants used in *kwaadaandoeners'* *xaimpies* and *toorblikkies* cultivate *entoored* relations with particular, poisonous atmospheres. At still other times, plants such as *kougoed* – alongside the krag, skill, and presences evoked by kruiedokters – are drawn upon to quiet, or expel pain- and trouble-causing winds.

Perhaps we might take a leaf out of Koos' book here and develop studies, centring around medicinal plants, that investigate the ways in which different modes of existence are brought into *ritme*, or rhythm, in the healing contexts in which they are employed. In acknowledging that different modes of existence, and the interweaving of these are of importance to human life and well-being, this could present opportunities for novel, creative, and non-reductionist collaborations between scientific, biomedical and traditional medical practitioners. That is not to say that there are no particular

instances where one mode must, for the benefit of human life, be recognised to trump the others – such as in the instance of antiretrovirals.

This is not an entirely new suggestion. Since at least the 1980s, medical anthropologists have generated a considerable literature on the ‘medical pluralism’ lived by millions of people across the African continent, and the planet in general. People, it has been recognised time and again, are concerned with *what works*: combining different forms of healing practices and in their daily lives in the search for health and wellbeing⁶⁴. Where the ‘ontological turn’, and AIME in particular, can take this genre of work in new and potentially emancipatory directions is in providing the conceptual tools for thinking about such pluralism in ways that aren’t imprisoned by a world prematurely delineated into its constituting elements of mind and body, or mind plus body, or mind-body. Many other kinds of synergistic and antagonistic interactions have likely been carrying on all around us in such pluralist healing contexts, their particularities rendered invisible by our limited modernist or post-modernist conceptual frameworks.

Considering relativism again

Nevertheless, here the prospect of ontological relativism rises once again: the danger being that endlessly proliferating modes of existence render once again reliable knowledge of the common world impossible. On this point, an AIME response would be that the modes are both interdependent and in some way *limited in number*. Latour’s aim is to extend the number of modes of existence in order to produce a more accurate anthropology of modernization, and from there to facilitate the possibility of diplomacy with other collectives. Beyond this, his ultimate aim is the composition of the common world, to begin the modernization project again on ‘a new footing’ (modesofexistence [AIME], n.d.). This would involve a collective effort of comparative anthropology, an effort that Latour has tried to facilitate through an online version of his project, identifying the myriad ways different collectives have established and developed for constructing, engaging with, and understanding the world. But this is seen from the perspective of an expanded realism, of many more modes of existence, of which fifteen is a first and necessarily temporary total (AIME, n.d.). The idea is that the total will expand as the collective effort progresses (Latour 2013). Since modes are partly works of human effort this would never be a fixed, complete list as such – more an ongoing project of collective recognition and inquiry

⁶⁴ See Baer et al. (2003) for a general discussion of the place of this term in medical anthropological theory. See Dilger et al. (2012) for discussions of medical pluralism in the broader African context. See Dauskardt (1990) for an overview of works on medical pluralism in the South African context. For accounts of the pluralistic history of medical practice and theory in South Africa, see Digby (2005, 2006, 2008). See Lalbahadur (2013), Moshabela et al. (2011), Niehaus (2013), and Ross (2010) for more recent accounts of medical pluralism in South Africa.

in search of the possibility of a common world. This is a grand and highly ambitious but no less refreshing aim that moves beyond both modernist reductionism and postmodern, endlessly fractionating relativism, and is fitting for a world facing the looming reality of ecological and economic disasters that are *shared* globally. This also highlights the importance of an anthropology as advocated by Viveiros de Castro et al. that would play a role in people's "ontological self-determination" (Holbraad et al. 2014): it is only through allowing people's concepts to define the world that the diversity of modes of existence could ever be granted space to breathe in the written worlds that anthropologists produce.

If the composition of a common world is possible, the number of modes that such concepts unveil or invent cannot be entirely infinite. And in fact, despite huge diversity, there are not infinite, or absolute, differences between human beings and the ways we live in and with the world. If there were, the project of anthropology would remain impossible, with no understanding possible between people of different heritages, 'cultures', 'ontologies'. There must be some kind of limit to the modes, and certain commonalities that draw together under similar tonalities the many ways different people, at different times, in different places, have developed for enrolling and calling forth responses from the world. Where in a previous era of modernization, mind/matter acted as ontologically foundational co-ordinates originating within the expanding European nations of the sixteenth and seventeenth centuries, the aim would ultimately be the emergence of a new set of co-ordinates derived from knowledge practices of all quarters of our planet. For example, the vital concept of *krag* and its cultivation, key to many aspects of *kruiedokter* work, and the Chinese concept of vital nourishment, as articulated by Jullien (2007), might be suggestive of such new (although very old) co-ordinates. These are of course very different, vital concepts, with very different histories and meanings associated with them, and I would not attempt to equate them as the same. However, there is a sense in which they share a particular kind of tonality, having to do with experiences of healthy bodily flows, of feelings of rising and falling feelings of vigour, vitality and strength associated with wider ecological relations with the human and non-human world. They are not the same, and yet they are also not entirely dissimilar; and there is no reason that if vital nourishment can be the basis for serious thought, research and insight into the world, that *krag* cannot be the same. Not as something to be blindly accepted, or tolerated for its cultural value, but as a natural-cultural phenomenon of the world that can be reckoned with, opposed, utilized, reflected upon – as long as one is able to discern the proper interpretive key in which to do so. Just as there are correct and incorrect ways of tracking bioactivity or discerning molecule structures in plants, there are correct and incorrect ways of speaking of and cultivating *krag*, of nourishing vitality – it is not a relativist free for all where anything goes.

This is to say that there *is* a world that we share in common but that the process of its conceptual composition is not behind us in the triumphant spirit of the sixteenth and seventeenth centuries, but ahead of us in a very much less certain future. My hope is that this thesis makes a small but worthwhile contribution towards this expanded common world.

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